

GB 0440 Mather Papers

## **John Innes Foundation Historical Collections**

**This catalogue was digitised by The National Archives as part of the National Register of Archives digitisation project**

NRA 42979



The National Archives

THE ARCHIVES OF  
PROFESSOR SIR KENNETH MATHER  
DONATED TO THE GENETICAL SOCIETY

1991



Catalogue compiled by Rosemary Harvey, Archivist, John Innes Centre.

### Sir Kenneth Mather

Kenneth Mather was born at Nantwich, Cheshire in 1911 and educated at Acton Grammar School and Manchester University, where he gained a first class degree in Botany in 1931. He was University of Manchester Ministry of Agriculture Scholar from 1931 until 1934.

On graduating, he joined the staff of the John Innes Horticultural Institution, (which was then located at Merton, Surrey), to study genetics and cytology. Here he worked on a cytological examination of the root tips of 64 species and varieties of *Crocus*; meiosis in lilies; polyploid series in *Prunus*; the effects of X-rays on the somatic chromosomes of *Crocus* species and a *Tulipa* variety and the inheritance and mechanism of the production of mosaic flowers in *Antirrhinum*.

In September 1933 Mather moved to Svalöf in Sweden to spend the third year of his Ministry of Agriculture scholarship there under Professor Nilsson-Ehle.

The following year Mather was appointed Assistant Lecturer in the Galton Laboratory's Department of Eugenics at University College, London. By June 1937 he had gained promotion to Lecturer. His work with Ronald Fisher at University College proved to be of signal importance to his future career.

Although he had no formal training in mathematics, Mather had "a flair for presenting statistical analysis in a form that could be understood, applied and interpreted by others." This culminated in The Measurement of Linkage in Heredity (1938) and Statistical Analysis in Biology (1948), both of which became standard works and ones which are still in use today.

In October 1937 Mather started work at Pasadena, California, where, as a Rockefeller Foundation Scholar, he was to study the mechanism of crossing-over with T.H.Morgan at the California Institute of Technology. He returned the following Autumn to resume work at John Innes, this time as Acting Head of the Genetics Department.

Here he began investigations on various aspects of the inheritance of polygenic characters and selection experiments on hair number in *Drosophila melanogaster*.

The following year Mather was made head of the Genetics Department at John Innes. By now war had broken out, and special measures had to be taken, as the John Innes Report for 1939 states: "To make good the reduction of area under experimental crops and, at the same time, reduce the cost of experiments, genetic work is being partly transferred indoors. Dr.Mather is studying the problem of inbreeding in *Drosophila* with a view to applying the principles to crop plants." He also started investigations on various aspects of the inheritance of polygenic characters, using a number of different species.

Another result of war measures was the Chairman's suggestion that "drug plants" should be cultivated at John Innes. With the co-operation of Professor L.J.Witts, chairman of the Therapeutic Requirements Committee of the Medical Research Council, a collection of species was made. Mather was to carry out selection work with the assistance of the Pharmaceutical Society. He also continued with polygenetic investigations on *Drosophila*, beans, barley, tomatoes and Petunia.

Later work at John Innes by Mather and his department included studies on heterostyly in *Primula sinensis*, the breeding system and genetic isolation in *Antirrhinum* and polygenic inheritance.

In 1940 Mather obtained his DSc for his outstanding work on the study of chromosome behaviour, on which he had published widely.

However promising these investigations may have been, Mather nevertheless accepted the offer of the newly established Chair of Genetics at the University of Birmingham in

October 1948. The John Innes Director, C.D. Darlington, gave him an accolade in the Annual Report for that year:

"Dr. Mather has spent 12 fruitful years with us, first from 1931 to 1933 when he did much pioneer work in cytology and, secondly, from 1938 until the present year. During this period, fortified by the experience he had had with Rasmusson, Fisher, East and Morgan, he has applied methods of such extreme thoroughness to the study of quantitative variation as to make almost a new science of it. Dr. Mather had just sent to press a new book on *Biometrical Genetics* and had completed two works in collaboration with myself, *The Elements of Genetics* and *Genes, Plants and People*, a volume of collected essays. It was clear that Dr. Mather was marked out to found a new school in genetics and, while his loss is a severe blow, there is no doubt of the service he will be able to render us in his new post..."

Mather stayed at Birmingham from 1948 until 1965, building up the Department of Genetics to one "which had a world-wide reputation for all aspects of genetics (in particular biometrical genetics), and which turned out numerous, now well-established, geneticists." It was during this time that he was elected a Fellow of the Royal Society - in 1949.

Mather became gradually more and more involved in external administrative duties. Apart from university administration, he served on the Agricultural Research Council and was on the governing body of many research stations; he was also President of the Genetical Society and edited the international journal *Heredity*.

In 1965 he accepted the post of Vice-Chancellor of Southampton University. The university was undergoing a phase of great expansion, doubling its numbers during his term of office. Mather played a large part in securing and consolidating its new Medical School.

In the sixties, during the difficult years of student unrest, Mather not only acted as Vice-Chancellor of Southampton University, but also gave lectures and even found time to run a research programme there.

In 1971 Mather returned to Birmingham as an Honorary Professor and Senior Research Fellow; here he concentrated on his first love: research. He was still engaged in writing research papers when he died, on March 20th 1990, aged 78.

Mather wrote over 280 papers and 11 books, some of which have become classics and are still consulted today.



SUBJECT INDEX

## SUBJECT INDEX

<u>Abies</u> (Slides:Box 2) . . . . .	72
Ability (Files 114,128) . . . . .	37,43
Acacia (Slides:Box 1) . . . . .	71
<u>Acer</u> (Slides:Box 2) . . . . .	72
<u>Agathis</u> (Slides:Box 2) . . . . .	73
Agricultural research (File 114) . . . . .	37
Agricultural Research Council (Files 105,140, Box 5) . . . . .	26,51,57,58
Agricultural research institute, costs & benefits of (File 43) . . . . .	9
Agricultural Research Service (File 114) . . . . .	37
Agriculture, Varieties in (File 43) . . . . .	10
Agriculture, Work study: use in (File 140) . . . . .	51
<u>Albugo</u> (Slides:Box 2) . . . . .	72
Algae (Slides:Box 1) . . . . .	71
American Society of Human Genetics (File 132) . . . . .	46
Amphibia (File 132) . . . . .	46
Aneuploidy (File 39) . . . . .	8
Animal breeding & genetics (Files 105,112) . . . . .	26,33
Animal communities (Books) . . . . .	54
Animal genetics (Files 105,112) . . . . .	26,34
<u>Antheridia</u> (Slides:Box 1) . . . . .	71
<u>Antirrhinum</u> (Introduction, Files 101,108,109, Boxes 5,6,9)Intro-p.2,23,29,30,57,65,69,70	
Apples, weather & plant disorders (Box 9) . . . . .	70
<u>Araucaria</u> (Slides:Box 2) . . . . .	73
<u>Aristolochia</u> (Slides:Box 2) . . . . .	72
Ascensus (Box 7) . . . . .	68
<u>Ascophyllum</u> (Slides:Box 2) . . . . .	72
Aspidistra (Slides:Box 1) . . . . .	71
Association of Scientific Workers (Box 6) . . . . .	66
Associazione Genetica Italiana (File 140) . . . . .	51
Asymmetry (Ringbinder 4) . . . . .	53
<u>Atropa</u> : notes on . . . . .	52
<u>Auricula</u> (Slides:Box 2) . . . . .	72
Australia (File 139; Box 5) . . . . .	50,58
Autotetraploid populations (Files 39,88) . . . . .	8,19
<u>Azotobacter</u> (Slides:Box 1) . . . . .	72
Barley, actual & potential yield (File 43) . . . . .	10
Barley, competitive effects (Files 55,59) . . . . .	13
Barley, ear conformation (Box 9) . . . . .	69
Barley, PDSC competition (File 55) . . . . .	13
Barley Stripe Mosaic Virus (File 43) . . . . .	10
Batesoniana (File 100) . . . . .	23
Bayfordbury, <u>see</u> : John Innes Institute	
Beans ( <u>See also</u> : <u>Phaseolus</u> , <u>Vicia</u> ) (Intro.p.2; File 109, Boxes 6-9; Slides Box 1) . . . . .	Intro.p.2;30,66,67,69,71
Behaviour, Social (Ringbinder 5) . . . . .	53
<u>Beta</u> (Slides:Boxes 1,2) . . . . .	72
<u>Bignonia</u> (Slides:Box 2) . . . . .	72

<u>Binna</u> (Slides:Box 1) . . . . .	71
Biographical material (Files 30,127; Box 7) . . . . .	6,42,67
Biological & social organization (File 115) . . . . .	38
Biological Society (University of Birmingham) (File 128) . . . . .	43
Biometric Conference, 3rd International (File 140) . . . . .	51
Biometric Society (Files 112,123,140) . . . . .	35,41,51,52
Biometrical approach to crop improvement (File 127) . . . . .	42
Biometrical genetics (Files 35,38,112,116,119-20,122-3,127,132,134,137,138,140) . . . . .	Intro.p.3,7,36,38,39,40,41,42,49,50,52
Biometrical genetics, Introduction to (Files 35,38,136,137) . . . . .	7,49,50
Biometry, elements of (Files 120-121; Books) . . . . .	40,55
Blackberry, Merton Thornless (Boxes 4,6) . . . . .	56,66
<u>Blasia</u> (Slides:Box 1) . . . . .	71
Blood groups (Files 114,124,132) . . . . .	37,41,48,49
<u>Boetes</u> (Slides:Box 1) . . . . .	71
Bone formation (File 106) . . . . .	27
Books . . . . .	54-55
Books, correspondence concerning (Files 71,119-21) . . . . .	16,39-40
Botany, structural (Books) . . . . .	55
<u>Botrychium</u> (Slides:Box 1) . . . . .	72
<u>Botryopsis</u> (Slides:Box 2) . . . . .	72
<u>Brassica</u> (File 103) . . . . .	25
Breeding (Ringbinder 5) . . . . .	53
Breeding, Animal (Files 105,112,116,123,132, Boxes 8-9) . . . . .	26,33,38,40,46,49,69
Breeding, Plant (Intro.,Files 30,41,43,54,102,103,105,112,114,115,123; Box 5) . . . . .	Intro.p.2; 6,9,10,12,24,25,26,33,37,38,40,58,64
British Association (Files 112,140, Photograph) . . . . .	34,51,73
British Mycological Society (File 140) . . . . .	51
Broad beans (Slides:Box 1) . . . . .	71
Broadcasts (Files 124,128) . . . . .	41,44
Bryony (Slides:Box 1) . . . . .	71
Buttercups (Slides:Box 1) . . . . .	71
Butterwort (Slides:Box 2) . . . . .	72
<u>Caltha</u> (Slides:Box 1) . . . . .	72
<u>Calycanthus</u> (Slides:Box 1) . . . . .	72
Canada (File 114; Box 5) . . . . .	37,57
Canada: genetical & plant breeding centres (File 114) . . . . .	37
<u>Capsella</u> (Slides:Box 2) . . . . .	72
<u>Castagnia</u> (Slides:Box 2) . . . . .	72
<u>Casuarina</u> (Slides:Box 2) . . . . .	72
<u>Cedrus</u> (Slides:Box 2) . . . . .	72
Cell cultures (File 132) . . . . .	47
<u>Cephalozia</u> (Slides:Box 1) . . . . .	71
<u>Ceratozamia</u> (Slides:Box 2) . . . . .	72
Cereal varieties, increasing yield (File 43) . . . . .	10
Cereal varieties (variability of yields) (File 43) . . . . .	9
Chaetae, graphs (Box 9)(See also <u>Drosophila</u> ) . . . . .	69
Chaetae, mean number of (File 25; Box 9)(See also <u>Drosophila</u> ) . . . . .	5,70

Character and ability (Files 114,128) . . . . .	37,43
Charlock (Slides:Box 2) . . . . .	72
Chirwa, RM (Files 60,61,68) . . . . .	14,16
Chromosome anomalies (human) (File 9) . . . . .	2
Chromosome assay (Files 1,29) . . . . .	1,5
Chromosome behaviour (Intro.; File 108) . . . . .	(Intro.p2),29
Chromosome behaviour in monocotyledons (File 108) . . . . .	29
Chromosome disposition (File 90) . . . . .	19
Chromosome number (Boxes 5,8) . . . . .	57,68
Chromosome substitution (Files 51,111) . . . . .	12,30
Chromosome variation (File 108) . . . . .	29
Chromosomes (Intro.;Files 30,128;Box 8) . . . . .	(Intro p.1),6,44,69
Chromosomes, crossing-over (File 128) . . . . .	44
Chromosomes, Human (Hayward) (Graphs and photographs) . . . . .	52
Chromosomes, illustrations of (File 117; Boxes 8,9) . . . . .	38,68,70
Chromosomes, Lampbrush, of the newt (File 140) . . . . .	51
Chromosomes, linkage (File 11) . . . . .	3
Clover (Files 61,69) . . . . .	14,16
Coadaptation in plants (File 64) . . . . .	15
<u>Conidium</u> (Slides:Box 2) . . . . .	72
Conference on Supply of Scientists & Technologists for Industry (File 140) . . . . .	51
<u>Conopodium</u> (Slides:Box 2) . . . . .	72
Continuous variation (Files 109,122,134,138) . . . . .	30,40,49,50
Continuous variation, genetic analysis of (Files 75-77,84) . . . . .	17-18
Continuous variation, genetical units of (File 11) . . . . .	2
Continuous variation, Non-allelic interaction in (File 116) . . . . .	38
Correlation (Files 33,52; Ringbinder 8) . . . . .	7,12,54
Coupling (Box 9) . . . . .	69
Crane, MB (Files 62,72,73,112,126,128; Box 6) . . . . .	14,17,33,42,43,65
Crop improvement, biometrical approach to (File 127) . . . . .	42
Crop plants, Disease resistance in (File 140) . . . . .	51
Crossing-over (Box 9) . . . . .	70
<u>Cycas</u> (Slides:Box 2) . . . . .	72
<u>Cylindrispermum</u> (Slides:Box 2) . . . . .	72
<u>Cyperus festuca xanthorhea</u> (Slides:Box 2) . . . . .	72
<u>Cypredion</u> (Slides:Box 1) . . . . .	71
Cytogenetics (Ringbinder 5) . . . . .	53
Cytological papers (mostly 1920-1940's) (Card Index) . . . . .	71
Darlington, CD (Photograph) . . . . .	73
Darwin, CR (File 115) . . . . .	38
<u>Datura</u> : notes on (Notebooks) . . . . .	52
Dawson, CDR (Box 6) . . . . .	66
Death rates (File 132) . . . . .	47
Degrees of freedom (Ringbinder 6) . . . . .	53
Determinants, processes & natural selection (File 114) . . . . .	37
Diabetes (File 132) . . . . .	47
Diallel crosses (Files 31-33,52,78,111,131) . . . . .	6,7,12,18,30,45
<u>Dicksonia</u> (Slides:Box 1) . . . . .	72



<u>Dictyota</u> (Slides:Box 2) . . . . .	72
<u>Digitalis</u> (File 106; Notebooks) . . . . .	27-8,52
Disease, human, inheritance (File 132) . . . . .	48
Disease, human, prevention (File 132) . . . . .	46
Disease resistance in crop plants (File 140) . . . . .	51
Disruptive selection (Files 92-3,118,130; Box 7) . . . . .	20-21,38,45,67
Disruptive selection, polymorphism & sympatric speciation . . . . .	
(File 118; Box 7) . . . . .	38,67
Distributions (Files 52,109; Ringbinder 6; Box 9) . . . . .	12,30,53,69
Dixon, Roy (Photographer) . . . . .	73
Dominance (Files 4,13,14,16,77,103,137) . . . . .	3,4,18,24,50
Dominance and gene frequency (Files 4,13) . . . . .	1
<u>Dracaena</u> (Slides:Box 1) . . . . .	72
Drawings (Boxes 8,9) . . . . .	68-71
<u>Drosera</u> (Slides:Box 2) . . . . .	72
<u>Drosophila</u> (Intro p.2;Files 77,78,86,93,97,114,130;Box 6) . . . . .	18,19,21,22,37,45,66
<u>Drosophila</u> : chaetae (Files 16,52; Boxes 6,7,9) . . . . .	12,66,67,69
<u>Drosophila</u> : competition in (Files 51,118,130) . . . . .	12,39,45
<u>Drosophila</u> : competition,resource partitioning & facilitation (File 29) . . . . .	5
<u>Drosophila</u> : competitive interactions in (Files 1,29,42) . . . . .	1,5,6,9
<u>Drosophila</u> : gene coil with maternal effects (File 51) . . . . .	12
<u>Drosophila</u> : genetical variation for enzyme activity (File 29) . . . . .	5
<u>Drosophila</u> , induced mutations in (File 132) . . . . .	46
<u>Drosophila</u> Information Service (Box 7) . . . . .	67
<u>Drosophila</u> : interactions between individuals of like & unlike genotype (File 39) . . . . .	8
<u>Drosophila</u> : manifold effect of selection (File 92) . . . . .	20
<u>Drosophila</u> : photographs (Boxes 8,9) . . . . .	69,70
<u>Drosophila</u> : populations: evolution & genetics of (File 93) . . . . .	21
<u>Drosophila</u> : quantitative inheritance (File 93) . . . . .	21
<u>Drosophila</u> : response to selection (Files 95-6) . . . . .	22
<u>Drosophila</u> , salivary gland (File 128) . . . . .	44
<u>Drosophila</u> : selection for an almost invariable character (File 92) . . . . .	20
<u>Drosophila</u> : stabilizing and disruptive selection (Files 92-3,130) . . . . .	20-21,45
<u>Drosophila</u> : sternopleural number (Ringbinder 1) . . . . .	52
<u>Drosophila</u> : tables on (Files 77,78,86) . . . . .	18,19
<u>Drosophila</u> : temperature and mutant expression (File 92) . . . . .	20
<u>Drosophila</u> : unequal crossing-over (File 92) . . . . .	20
<u>Drosophila</u> : variation in (File 92) . . . . .	20
<u>Drosophila</u> : varied environments (File 93) . . . . .	21
<u>Drosophila melanogaster</u> (Files 75,94) . . . . .	17,22
<u>Drosophila melanogaster</u> : alcohol dehydrogenase locus (File 92) . . . . .	21
<u>Drosophila melanogaster</u> : amylase variants (File 92) . . . . .	20-21
<u>Drosophila melanogaster</u> : chaetae (Files 17,18,20-24,50,92,Box 9) . . . . .	4,5,11,20,69
<u>Drosophila melanogaster</u> : chiasmata & crossing-over (File 108) . . . . .	29
<u>Drosophila melanogaster</u> : competitive interactions (Files 29,42,67,87) . . . . .	5,6,9,15,19
<u>Drosophila melanogaster</u> : enzyme activity (File 29) . . . . .	5
<u>Drosophila melanogaster</u> : genetics of coxal chaetae in (Files 23-26,50) . . . . .	5,11
<u>Drosophila melanogaster</u> : inbred line: variation (File 92) . . . . .	20
<u>Drosophila melanogaster</u> : influences of anaesthesia (File 92) . . . . .	21



<u>Drosophila melanogaster</u> : interactions in (File 15)	3
<u>Drosophila melanogaster</u> : larval interaction (File 125)	41
<u>Drosophila melanogaster</u> : linkage disequilibrium (File 11)	3
<u>Drosophila melanogaster</u> : mutations (File 92)	20
<u>Drosophila melanogaster</u> : polygenic characters (File 92)	20
<u>Drosophila melanogaster</u> : quantitative inheritance (File 30)	6
<u>Drosophila melanogaster</u> : salivary gland (Photograph)	73
<u>Drosophila melanogaster</u> : selection for bristle numbers (File 92)	20
<u>Drosophila melanogaster</u> : spontaneous mutation in (File 92)	20
<u>Drosophila melanogaster</u> : sternopleural and coxal chaetae (Files 15-26)	3-5
<u>Drosophila pseudoobscura</u> : changes in inversion frequencies (File 140)	52
Duocultures (File 45)	10-11
Dwarfing genes and breeding for yield in bread wheat (File 43)	10
<u>Eleffaria</u> (Slides:Box 1)	72
Elements of biometry (Files 120-21; Books)	40,55
Elements of genetics (Intro.p.3; Files 112, 123)	Intro.p.3,31,36,41
<u>Epilachna</u> (Box 8)	69
<u>Epilobium</u> (Box 6)	66
Epithalamion on the occasion of the marriage of K.Mather (Verse)	73
<u>Equisetum</u> (Slides:Box 1)	72
<u>Eryngium</u> (Box 9)	69
<u>Escherichia coli</u> : (File 104)	25-6
Estimation of genetic parameters from a diallel set of crosses (File 3)	1
Euploidy (File 39)	8
Evolution (Files 30,93,124 132,140)	6,21,41,46-47,48,49,51
Evolution, Human relationships (File 115)	38
Evolution, Symposium (S.E.B.) (File 120)	39
Fabergé, AC (File 129)	44-45
<u>Fagus</u> (Slides:Box 2)	72
Fertility (Files 63,65,132; Ringbinders 1,3)	14,15,49,52,53
Fertilization, differential, in <u>Rubus idaeus</u> L (Box 6)	67
Feral forms (File 38)	7
<u>Ficus</u> (Slides:Boxes 1,2)	72
Fisher, RA (Intro.p.2,3;Files 48,72,103-6,112-114,123,128-9; Photograph)	Intro.p.2,3; 11,17,24-27,31,36,37,41,43-45,72
F <sub>1</sub> hybrids from open pollinating populations (File 89)	19
Food (File 39)	8
Food for thought (Box 6)	66
Forage crops, breeding (File 30)	6
Forage crops, competitive ability (File 68)	16
Freedom, degrees of (Ringbinder 6)	53
Freedom, meaning of (File 132)	46
French Beans, Varietal differences in crossability (Box 6)	66
<u>Fritillaria</u> , chromosomes (Box 8)	68
Fruit (File 72, Box 5)	17,62
Fruit, the seed and the soil (Box 4)	56

Functional aspects of genetic variation (File 92) . . . . .	21
Functional structure of genes (File 132) . . . . .	47
<u>Funkia</u> (Slides:Box 1) . . . . .	72
Galton Laboratory: <u>See</u> : University of London	
Gardening (Box 6, and Books) . . . . .	54,66
Gene action and genotype x environment interaction (File 3) . . . . .	1
Gene frequency (Files 4,13; Box 9) . . . . .	1,69
Gene frequency, Dominance and (Files 4,13) . . . . .	1
Gene recombination (File 104; Boxes 6,8,9) . . . . .	26,65,69
Generations (File 33; Box 9) . . . . .	7,69
Genes (Intro.p.3, Files 112,128; Ringbinder 5) . . . . .	31,44,53
Genes and effective factors (File 82) . . . . .	18
Genes controlling quantitative characters in maize (File 137) . . . . .	50
Genes, detrimental, in man (File 132) . . . . .	46
Genes, Dwarfing (File 43) . . . . .	10
Genes, estimating the number of (File 11) . . . . .	3
Genes found in selected lines, Origin of (File 11) . . . . .	3
Genes, functional structure (File 132) . . . . .	47
Genetic aspects of virulence (Ringbinder 5) . . . . .	53
Genetic balance (File 132) . . . . .	47
Genetic diversity and natural selection (File 120) . . . . .	39
Genetic equilibrium (Box 7) . . . . .	67
Genetic parameters, Estimation of - from a diallel set of crosses (File 3) . . . . .	1
Genetic polymorphism (File 30; Box 7) . . . . .	6,67
Genetic variation (Files 88,92,137) . . . . .	19,20,21,50
Genetical analysis of continuous variation (Files 75-77,84) . . . . .	17-18
Genetical papers (mostly 1920-1940's)-(Card Index) . . . . .	71
Genetical and plant breeding centres: USA and Canada (File 114) . . . . .	37
Genetical research (File 105,114,125) . . . . .	26,37,41
Genetical response to natural selection by varied environments (File 93) . . . . .	21
Genetical Society (Intro.p.3, Files 11,140; Boxes 4,6,7) . . . . .	2,51,56,67
Genetical structure of populations (Files 9-10,30,37,119-20,132,135,137) . . . . .	2,6,7,39,40,49,50
Genetical units of continuous variation (File 11) . . . . .	2
Genetical variation for enzyme activity in <u>Drosophila</u> (File 29) . . . . .	5
Genetical work at John Innes (File 101) . . . . .	23
Genetics (Intro.p.2,3; Files 94,97,99,102,111,133; Boxes 7,8) . . . . .	22,24,30,49,67,68
Genetics, animal breeding and (Files 105,112) . . . . .	26,33
Genetics, Chair of (Birmingham) (File 107) . . . . .	28
Genetics Congress, Holland (1963) (File 128) . . . . .	44
Genetics of coxal chaetae in <u>Drosophila</u> (Files 17,18,20-26,50) . . . . .	4,5,11
Genetics Department, John Innes Horticultural Institution (Box 6) . . . . .	65
Genetics Department, University of Birmingham (Files 9,100,112,118; Books) . . . . .	2,23,31,36,38,54
Genetics, ecological (File 120) . . . . .	39
Genetics, Elements of (Intro.p.3; Files 112,123) . . . . .	Intro.p.3,31,36,41
Genetics and evolution (Files 93,124) . . . . .	21,41
Genetics and evolution of <u>Drosophila</u> populations (File 93) . . . . .	21

Genetics, human (Files 114,120,132; Books)	37,39,46-49,55
Genetics, Informal International Genetics Congress (1945) (File 128)	43
Genetics, 9th International Congress of (File 140)	51
Genetics and the John Innes Institute (Box 4)	56
Genetics of microorganisms (File 104)	25
Genetics, molecular and informatics (File 104)	26
Genetics & plant breeding (Files 43,105,114)	9,26,37
Genetics & plant breeding centres in the USA and Canada (File 114)	37
Genetics, Population (Files 9-10,30,37,119-120,125,130,132,140; Ringbinder 5)	2,6,7,39-41,45-49,52,53
Genetics, potato (File 140)	51
Genetics, Quantitative (File 137)	50
Genetics, Radiation (File 140, Boxes 6,8)	51,67,68
Genetics, Rockefeller Fellowship in (File 113)	36
Genetics for schools (Box 7)	67
Genetics, Teaching (Universities) (Box 4)	56
Genetics, variation & heredity (File 109)	30
Genotype-environment interactions (Files 3,15,80,84)	1,3,18
Genotype-environment interactions, Symposium on (File 140)	52
Genotypes (Files 3,11,15,36,39,44,53,58,63,66,80,84,140; Ringbinder 9; Box 9)	1,3,7,8,10,12,13,15,18,52,53,54,70
Genotypes of perennial rye-grass (Ringbinder 9)	54
Gosset, WS, biography (File 30)	6
Greek alphabet (File 114)	37
Haldane, JBS (Files 103,114,130; Cartoons and verse)	24,37,45,74
Haploidy (Slides:Box 3)	73
<u>Haplosiphon</u> (Slides:Box 2)	72
Harvard University (File 113)	36
Hayward: Human chromosomes (graphs & photographs)	52
Helical molluscs (Box 9)	70
Hens (Poultry) (Files 132,140; Books; Notebooks; Photographs)	46,51,52,55,74
Heterochromatin (Ringbinder 5)	53
Heterokaryons (File 104)	25
Heterosis (File 127)	42
Heterostylism (Intro.p.2; Box 9)	Intro.p.2;70
Horticulture (Boxes 5,6)	64,65,66
Hubbard, PM: "Go East,Old Man" (Verse)	74
Human biology (File 125)	41
Human Biology, Society for the Study of (File 125)	41
Human blood groups (Files 124,132)	41,46,49
Human chromosomes, anomalies (File 9)	2
Human chromosomes, Hayward (Graphs and photographs)	52
Human disease, inheritance (File 132)	48
Human disease, prevention (File 132)	46
Human diversity and genetics (Files 120,121,132; Books)	39,40,46-49,55
Human genetics (Files 114,120,132; Books)	37,39,46-49,55
Human Genetics, American Society of (File 132)	46
Human nature, evolution (File 132)	48,49



Human populations (Files 125,132) . . . . .	41,48
Human relationships, evolution (File 115) . . . . .	38
Huntington's chorea (File 132) . . . . .	48
Huxley, JS (Files 112,128,132; Photograph) . . . . .	32,43,46,73
Hybridity, structural, in <u>Paeonia</u> (Box 6) . . . . .	67
Hybrids (Files 39,43,57,89,124; Boxes 5,6) . . . . .	8,10,13,19,41,57,67
<u>Hymenophyllum</u> (Slides:Box 1) . . . . .	72
<u>Hyoscyamus</u> : (notes on; Slides:Box 2) . . . . .	52,72
Imperial Agricultural Bureaux (Boxes 4,6) . . . . .	56,66,67
Imperial Bureau of Animal Breeding and Genetics (File 105) . . . . .	26
Imperial Bureau of Plant Breeding and Genetics (File 105) . . . . .	26
Inbreeding (Intro.p.2; Files 124,132; Box 9) . . . . .	41,48,70
Incompatibility (Files 36,132; Box 6) . . . . .	7,46,66
Informatics, Molecular genetics and (File 104) . . . . .	26
Institute of Biology (File 140) . . . . .	51
Intelligence (File 132) . . . . .	49
Intelligence quotients (File 132) . . . . .	48
Integrative levels & biology (File 115) . . . . .	38
International Biometric Conference, 3rd (File 140) . . . . .	51
International Congress of Genetics, 9th (File 140) . . . . .	51
International Congress of Genetics, Informal (File 128) . . . . .	43
International Congress of Zoology, 15th (File 140) . . . . .	51,52
Introduction to biometrical genetics (Files 35,38,136,137) . . . . .	7,49,50
<u>Isoetes</u> (Slides:Box 1) . . . . .	73
Jinks, JL (Files 11,35,40,52,53,71,99,104,118,119,122,127,131,134,136,137,138) . . . . .	3,7,9,12,16,22,25,38,39,40,42-43,45,49,50
Johannsen, W (File 109, Box 7) . . . . .	30,67
John Innes [Horticultural] Institute [Institution] (Intro.pp.1-3; Files 72,101-3, 106,107,112,113, Boxes 1-5,6,8, Illus.) . . . . .	Intro p.1,2,3; 17,23-25,27,29,31,32,34,36,55,56,60,61,65,66,68,69,73
John Innes Horticultural Institution, <u>Polygonatum</u> planted by park fence (Box 8) . . . . .	68
John Innes Institute, Genetics and, (Box 4) . . . . .	56
Kew (Files 16,107,112) . . . . .	4,29,32
Kimura derivation (Files 3,4) . . . . .	1
<u>Laminaria</u> (Slides:Box 1) . . . . .	71
Lampbrush chromosomes of the newt (File 140) . . . . .	51
Lederberg, J (File 104) . . . . .	25-26
Lethality (Box 6) . . . . .	65,66
Lethality & recombination (Box 6) . . . . .	65
<u>Lilium</u> (Intro.p.2; Files 108,117; Boxes 8,9) . . . . .	Intro p.2; 29,38,68,71
Lime (Slides:Box 1) . . . . .	71
Linkage (Intro p.2; Files 11,30,32,36,79,104,118,123) . . . . .	3,6,7,18,25,38,40
Linkage, in quantitative inheritance (File 30) . . . . .	6
Linkage, Measurement of, in heredity (File 123) . . . . .	40
Linkage (Michael Lawrence) (File 36) . . . . .	7

Linnean Society (File 126) . . . . .	42
<u>Lolium</u> (Files 39,44-47,49,63) . . . . .	8,10,11,14
<u>Lolium</u> : uniformity & stability of allotetraploids (File 39) . . . . .	8
Lotus (Box 6) . . . . .	66,67
<u>Lycopodium</u> (Slides:Box 1) . . . . .	71
<u>Lythrum</u> (File 114) . . . . .	37
Maize,(Files 43,137; Boxes 2,6,9) . . . . .	10,50,66,67,69,72
<u>Malvactorr</u> (?) (Slides:Box 2) . . . . .	72
Man, detrimental genes in (File 132) . . . . .	46
Man, hazards of nuclear radiations to (File 124) . . . . .	41
Man, Non-metrical variation in...(File 125) . . . . .	41
Manipulation of genetic systems in plant breeding (File 41) . . . . .	9
Marriage (File 132; Verse) . . . . .	48,73
Marrows (Slides:Box 1) . . . . .	71
<u>Marsilia</u> (Slides:Box 1) . . . . .	72
Mating (File 88; Ringbinder 5; Box 6) . . . . .	19,53,67
Measurement of linkage in heredity (File 123) . . . . .	40
<u>Meconopsis latifolia</u> (Box 9) . . . . .	70
Medica, Acta genetica et statistica (File 132) . . . . .	48
Medical evidence: 18th century European population changes (File 132) . . . . .	48
Medical Institution, Liverpool (File 132) . . . . .	48
Medical Journal, British (File 132) . . . . .	46,47
Medical Officer (File 123) . . . . .	40
Medical Officer, Dept. of Health for Scotland (File 132) . . . . .	47
Medical Publishing Co., Pitman (File 132) . . . . .	46
Medical Research Council (Intro.p.2; Files 132,140) . . . . .	Intro.p.2,49,51
Medical School, Birmingham Hospitals Centre (File 112) . . . . .	33
Medical School, Middlesex Hospital (File 112) . . . . .	32
Medical School, Oxford University (File 121) . . . . .	40
Medical School, Southampton University (Intro.p.3). . . . .	Intro.p.3
Medicinal plants (notebook) . . . . .	52
Medicine, London School of Hygiene and Tropical (File 112) . . . . .	34
Medicine, Perspectives in Biology and (File 132) . . . . .	47,49
Medicine, Scientific basis of (File 132) . . . . .	47
Meetings, (File 140) . . . . .	51
Meetings: American Society of Human Genetics (File 132) . . . . .	46
Meetings: Biometric Society (File 140) . . . . .	51,52
Meetings: British Association (Illustrative Material) . . . . .	73
Meetings: British Mycological Society (File 140) . . . . .	51
Meetings: C.C. (File 101) . . . . .	23
Meetings: Farmers' Club (File 114) . . . . .	37
Meetings: Genetical Society (Files 11,140) . . . . .	3,51
Meetings: Institute of Biology (File 140) . . . . .	51
Meetings: Royal Society (Files 40,41) . . . . .	9
Meetings: Society for Experimental Biology (File 140) . . . . .	51
Mental deficiency (File 132) . . . . .	48
<u>Merismopachia</u> (Slides:Box 2) . . . . .	72
Merton Thornless Blackberry (Boxes 4,6) . . . . .	56,66



Mice, Gene recombination in (Box 8) . . . . .	69
Mice, Metabolic measurements in a population (File 125) . . . . .	41
Mice, Non-metrical variation in...(File 125) . . . . .	41
Mice, Structure of sex determining mechanisms in (Box 6) . . . . .	67
Molecular genetics and informatics (File 104) . . . . .	26
Molecules (Files 128,132) . . . . .	44,47
Molluscs, helical (Box 9) . . . . .	70
Monocultures (Files 45,47,55) . . . . .	10-11,13
Moon, Effect of temperature and moon on seedling growth (File 106) . . . . .	27
Moon, Seed germination and (File 27) . . . . .	27
<u>Mougiottia</u> (Slides:Box 2) . . . . .	72
Multi-locus polymorphism & selection in a population (File 11) . . . . .	2
Multiple niche (Box 7) . . . . .	67
Mutation to virulence in plant pathogens (File 140) . . . . .	51
Mutations (Files 92,119,124,132,140; Ringbinder 5) . . . . .	20,39,41,46,48,51,53
Natural selection (Files 93,114,120,130,132) . . . . .	21,37,39,45,48,49
Natural selection by varied environments, Genetical response to (File 93) . . . . .	21
Natural selection, Determinants, processes and (File 114) . . . . .	37
Natural selection, genetic diversity and, (File 120) . . . . .	39
<u>Nemalion</u> (Slides:Box 2) . . . . .	72
Nematodes (File 57) . . . . .	13
Nematodes: Potatoes, PDSC (File 57) . . . . .	13
<u>Nemesia</u> (Box 8) . . . . .	69
<u>Nestria</u> (Slides:Box 2) . . . . .	72
Newt, Lampbrush chromosomes of the (File 140) . . . . .	51
<u>Nicotiana</u> (Files 75,77,79,85; Boxes 5,9) . . . . .	17,18,57-65,69
Nomography (Box 7) . . . . .	67
Non-allelic interaction in continuous variation (File 116) . . . . .	38
Nucleic acid (File 132) . . . . .	47
Oats, grain length, variability (Box 9) . . . . .	69
One-way incompatibility (Box 6) . . . . .	66
Operational research to increase productivity (File 140) . . . . .	51
Opposition (Box 9) . . . . .	69
Orchids (Slides: Box 1) . . . . .	71
Origin of genes found in selected lines (File 11) . . . . .	3
<u>Oscillatoria</u> (Slides:Box 2) . . . . .	72
Osterstock, HC (Box 9) . . . . .	70
Outbreeding (File 124; Box 9) . . . . .	41,70
Pachytene (Box 9) . . . . .	70
<u>Paeonia</u> , structural hybridity in (Box 6) . . . . .	67
Paintings (Box 8) . . . . .	69
<u>Paorum</u> (Slides:Box 2) . . . . .	72
Parallel variation (File 114) . . . . .	37
Pellew, C (Box 6) . . . . .	66
Perennial Rye-Grass (Files 44,46,47,53,58,61,63,66,69; Ringbinder 9) . . . . .	10-16,54
Perennial Rye-Grass, competition experiment (Files 44,46,47,53,58,66) . . . . .	10,12,13,15

Perennial Rye-Grass, genotypes of (Ringbinder 9)	54
<u>Peronospora</u> (Slides: Box 2)	72
Perspective and prospect, (by K.Mather) (Files 40,41)	9
Perspectives in Biology and Medicine (File 132)	47,49
<u>Petasites</u> (Slides: Box 2)	72
Petunia, corolla length (Intro.p.2; Box 9)	Intro p.2; 69
<u>Peziza</u> (Slides: Box 2)	72
Pharmaceutical Society (Intro.p.2; File 106)	Intro.p.2; 27,28
<u>Phaseolus</u> (File 109; Boxes 6,7,8)	30,66,67,69
Phenotypes (Files 50,111; Box 9)	11,30,69,70
Phenotypic competition (File 111)	30
Photographs (Files 72,103,108,112,114,128,140; Boxes 5,8,9; Notebooks; Illustrative Material etc)	17,25,29,37,43-44,52,63,68,69,70,72-4
<u>Phytisma</u> (Slides:Box 2)	72
<u>Phytophthora infestans</u> (File 57)	13
<u>Picea</u> (Slides:Box 2)	72
Pig-breeding (Boxes 8,9)	69
<u>Pinus</u> (Slides:Box 1, Box 2)	71,72,73 14
<u>Piper</u> (Slides:Box 1)	72
<u>Pisum</u> (Box 6)	67
Planning experiments (Ringbinder 7)	53
Plant breeding & genetics (Files 41,43,102,105,114,115,123; Box 5)	9,10,24,26,37,38,40,58
Plant Breeding Institute (File 43)	10
Plant breeding, Manipulation of genetic systems in (File 41)	9
Plant pathogens, Mutation to virulence in (File 140)	51
<u>Plantago maritima</u> (Slides: Box 2)	72
<u>Poinsettia</u> (Slides: Box 2)	72
Polygenic balance (File 118)	38
Polygenic inheritance (Intro.p.2; Files 1,3,5-8,11,12,92,118,132,137; Boxes 5,6; Ringbinder 5)	Intro.p.2;1,2,20,38,46,50,53,57,65
Polygenic systems (Files 11,132,137; Ringbinder 5)	2,46,50,53
Polygenic variation (Box 6)	65
<u>Polygonatum</u> (Box 8)	68
Polymorphism (Files 11,30,118,130,132; Box 7)	3,6,38,45,46,67
Polymorphism & sympatric speciation, Disruptive selection, (Files 118,130; Box 7)	38,45,67
Polynomial & multiple regression (File 88; Ringbinder 7)	19,53
Polyploids (Intro.p.2)	Intro.p.2
<u>Polypodium</u> (Slides: Box 1)	72
<u>Polysiphonia</u> (Slides: Box 2)	72
<u>Polytrichum</u> (Slides: Box 1)	71
Population changes, European (File 132)	48
Population dynamics (File 65)	15
Population genetics (Files 9-11,29,30,37,39,88,92,93,116,119-120,125,130,132,140; Ringbinder 5)	2,5-8,19,21,38-41,45-49,52,53
Population Genetics Group (File 140)	52
Populations (Files 30,89,93,125,130,132; Ringbinder 5)	6,19,21,41,45,46,47,48,53
Populations, Autotetraploid (Files 39,88)	8,19

Populations, genetical structure of (Files 9-10,30,37,119-120,132,135,137) . . . . .	2,6,7,39,40,49,50
Populations, Human (Files 125,132) . . . . .	41,48
Populations, Wild (Ringbinder 5) . . . . .	53
Porphyrias, The (File 9) . . . . .	2
<u>Potamogeton</u> (Slides:Box 1) . . . . .	72
Potato bacillus (Slides: Box 2) . . . . .	72
Potato foliage blight (File 57) . . . . .	13
Potato genetics (File 140) . . . . .	51
Potato Genetics Station (File 140) . . . . .	51
Potato yield trials (File 56) . . . . .	13
Potatoes, PDSC: nematodes (File 57) . . . . .	13
Potatoes: PDSC selection (Files 54,56) . . . . .	12
Poultry (Files 132,140; Books; Notebooks; Photographs) . . . . .	46,51,52,55,74
Poultry Congress, 10th, (File 140) . . . . .	51
Poultry, heredity (Books) . . . . .	55
Poultry (Photograph) . . . . .	74 <sup>75</sup>
<u>Primula sinensis</u> (Intro p.2; Box 6) . . . . .	Intro p.2; 66,67
Probability and significance (Ringbinder 6) . . . . .	53
Productivity, Operational research to increase productivity (File 140) . . . . .	51
<u>Psamma</u> (Slides:Box 1) . . . . .	72
<u>Pteris</u> (Slides:Box 1) . . . . .	72
Publishers: correspondence with (Files 12,18,71,97,120,121) . . . . .	3,4,16,22,40
Punch cartoons . . . . .	74 <sup>75</sup>
Pure lines (Box 7) . . . . .	67
<u>Pylaiella</u> (Slides: Box 2) . . . . .	72
Pyloric stenosis (File 132) . . . . .	48
Quantitative biology (File 132) . . . . .	49
Quantitative characters in maize (File 137) . . . . .	50
Quantitative genetics (Files 88,137) . . . . .	19,50
Quantitative inheritance (Files 30,93) . . . . .	6,21
Quantitative inheritance, Linkage in (File 30) . . . . .	6
Quantitative variation (Intro p.3; Files 11-12,30,92) . . . . .	Intro p.3;2,6,20
Quantitative variation and polygenic systems (Intro.p.3; Files 11-12) . . . . .	Intro p.3;2
<u>Rachis</u> (Slides: Box 1) . . . . .	71,72
Radiation Genetics (File 140; Boxes 6,8) . . . . .	51,67,68
Radiation hazards (File 124) . . . . .	41
Radioactivity (Files 125,132) . . . . .	41,46,49
Rat (Chromosomes) (Box 8) . . . . .	68
<u>Reboulis</u> (Slides:Box 1) . . . . .	71
Recombination (File 104; Boxes 6,8,9) . . . . .	26,65,69
Recombination, Lethality and (Box 6) . . . . .	65
Regression (Files 33,88,109; Ringbinder 7) . . . . .	7,19,30,53
Reinforcement (Box 9) . . . . .	69
Reprints, (miscellaneous) (Files 9,112,,118,125,132,137) . . . . .	2,31,36,38,41,46,50
Repulsion (Box 9) . . . . .	69
Response to selection (Files 91,94-98,132) . . . . .	19,22,49



<u>Riccia</u> (Slides: Box 1) . . . . .	71
<u>Robinia</u> (Slides: Box 2) . . . . .	72
Rockefeller Fellowship (File 113) . . . . .	36
Rockefeller Foundation (Intro p.2; File 113) . . . . .	36
Rockefeller University (File 113) . . . . .	36
Royal Horticultural Society (Files 106,126) . . . . .	27,42
Royal Society (Intro p.3; Files 40,41,110,112,119,124,126,140) . . . . .	9,30-36,39,41-42,51
<u>Rubus idaeus</u> L., differential fertilization in, (Box 6) . . . . .	67
Rye: competition (File 63) . . . . .	14-15
Rye-grass (Files 44,46,47,53,58,61,63,66,69; Ringbinder 9) . . . . .	10-16,54
<u>Sarcina</u> (Slides:Box 2) . . . . .	72
School of Agriculture, Cambridge <u>See</u> : University of Cambridge, School of Agriculture	
School TV Broadcasts (File 128) . . . . .	44
Schools, Genetics for (Box 7) . . . . .	67
<u>Sciaclopitys</u> (Slides:Box 1) . . . . .	71
Scientists & Technologists for Industry, Conference on Supply of (File 140) . . . . .	51
Scientists, Life of (File 114) . . . . .	37
Scientists, National Cataloguing Unit for the Archives of Contemporary (File 127) . . . . .	42
Scientists, War, production and (Box 6) . . . . .	66
Seals, Non-metrical variation in...(File 125) . . . . .	41
<u>Secale</u> (Slides: Box 3) . . . . .	73
Seed (Slides: Box 1) . . . . .	72
Seed, The Fruit, the Seed and the Soil (Box 4) . . . . .	56
Seed germination (File 59) . . . . .	13
Seed germination & the moon (File 27) . . . . .	27
Seed, <i>Nemesia</i> (Box 8) . . . . .	69
Seed, <i>Nicotiana</i> (Box 5) . . . . .	61,63
Seed production (File 105) . . . . .	26
Seedling growth: effect of temperature & moon (File 106) . . . . .	27
Seedling progeny test for resistance to potato blight (File 57) . . . . .	13
Seedling selection in a potato breeding programme (File 54) . . . . .	12
Seedlings (Box 8) . . . . .	69
Seeds in the seed packet (File 124) . . . . .	41
Segregation (Box 8) . . . . .	69
<u>Selaginella</u> (Slides: Box 1) . . . . .	71
Selection (Files 1-8,10-11,13,17-19,23,34,54,56,57,91-98,115,118,125,130,132,139; Ringbinders 1-3,12; Boxes 5-7) . . . . .	
. . . . . Intro.p.2; 1-5,7,12,13,20-22,38,39,41,45,48-50,52-54,57,66,67	
Selection, Disruptive (Files 92-93,118,130; Box 7) . . . . .	20-21,38,45,67
Selection, Response to (Files 17,18,23,91,94-98,132) . . . . .	4,5,19,22,49
Selection, Stabilizing (Files 1-8,92-93,118,125,130) . . . . .	1,2,20-21,39,41,45
Selection, Variability and (File 115) . . . . .	38
Selection, Variation and (Files 10,139; Box 6) . . . . .	2,50,66
Sex and mating (Ringbinder 5; Box 6) . . . . .	53,67
Sex determination (Box 6) . . . . .	67
Sex linkage (File 32) . . . . .	6
Significance (Files 71,92; Ringbinder 6; Books) . . . . .	16,20,53,55
Significance, Probability and (Ringbinder 6) . . . . .	53

Social behaviour (Ringbinder 5)	53
Social medicine (File 121)	40
Social organization, Biological and (File 115)	38
Social sciences (File 132)	49
Socially handicapped (File 132)	49
Society, Biological (University of Birmingham) (File 128)	43
Society, Biometric (Files 112,123,140)	35,41,51,52
Society, British Mycological (File 140)	51
Society for Experimental Biology (Files 120,140)	39,51
Society for Experimental Biology: Evolution Symposium (File 120)	39
Society, Genetical (Intro.p.3; Files 11,140; Boxes 4,6,7)	Intro p.3;2,51,56,67
Society of Human Genetics, American (File 132)	46
Society, Linnean (File 126)	42
Society, Pharmaceutical (Intro.p.2; File 106)	Intro.p.2; 27,28
Society, Royal (Intro.p.3; Files 40,41,110,112,119,124,126,140)	Intro.p.3; 9,30-36,39,41-42,51
Society, Royal Horticultural (File 106,126)	27,42
Society for the Study of Human Biology (File 125)	41
Somatic chromosome disposition (File 90)	19
Somatic chromosomes (Intro. p.2; File 90; Box 8)	Intro p.2;19,68
Speciation, Sympatric (Files 118,130; Box 7)	38,45,67
Sphagnum (Slides: Box 1)	71
<u>Spirogyra</u> (Slides:Box 2)	72
Stabilizing selection (Files 1-8,92-93,118,125,130)	1,2,20,21,39,41,45
Statistical analysis in biology (Intro p.2;Files 114,120,123; Books)	Intro p.2;37,39-40,54,55
Statistical tables (Books)	54
Statistics for biologists (Files 113,123,132,133)	37,40,48,49
Streptocarpus (Box 6)	66,67
Sugar (File 103)	25
Svälof, Summer 1934 (Photograph)	74
Symmetry (Ringbinders 1-3)	52-53
Sympatric speciation (Files 118,130; Box 7)	38,45,67
Sympatric speciation, Disruptive selection, polymorphism and (File 118; Box 7)	38,67
Symposia: Society for Study of Human Biology (File 125)	41
Symposium on Evolution (S.E.B) (Files 120,140)	39,51
Symposium on Genotype X Environment Interactions (File 140)	52
Symposium: Nature Conservancy Council (File 71)	16
Symposium: Plant Tissue and Organ Culture (File 132)	47
Symposium on Race (File 132)	47
Symposium: Role of Inheritance in Common Disease (File 132)	48
Tables (Files 2,3,9,13-16,19,21-34,37-39,42,44,45,47,49-53,61,63,67,74-82,85-88,92- 93,104,106,109,111,116,118,130,132; Ringbinders 2,4,5,9-12; Boxes 5,7,9)	1-12,14,15,17-21,26,28,30,38,45,46,48,52-54,60,63,67,69,70
Tables, Statistical (Books)	54



<u>Tamus</u> (Slides:Box 2) . . . . .	72
<u>Taxus</u> (Slides:Box 2) . . . . .	72,73
Temperature (Files 15,92,106) . . . . .	3,20,27
Temperature and the moon, Effect of, on seedling growth (File 106) . . . . .	27
Temperature and mutant expression, <u>Drosophila</u> (File 92) . . . . .	20
Tetraploid pairing, (Breese) (File 39) . . . . .	8
Tetrasomic inheritance with preferential pairing (File 39) . . . . .	8
Tetrasomic variation (File 88) . . . . .	19
<u>Thallus</u> (Slides:Boxes 1,2) . . . . .	71,72
Tobacco <u>See: Nicotiana.</u>	
<u>Todea</u> (Slides:Box 1) . . . . .	72
Tokyo Imperial University (Box 8) . . . . .	68
<u>Tolmeia</u> (Box 6) . . . . .	66
Tomatoes (Intro.p.2; Box 9) . . . . .	Intro p.2; 70
Tomatoes, weather & plant disorders (Box 9) . . . . .	70
Toothwort (Slides:Box 1) . . . . .	71
Triocultures (Files 42,67) . . . . .	9,15
<u>Triticum</u> <u>See also: Wheat</u> (Slides:Box 2) . . . . .	72
<u>Tropaeolum</u> (Box 6) . . . . .	67
Tulips (Intro.p.2; Box 9) . . . . .	Intro.p.2;70
Tulips, weather & plant disorders (Box 9) . . . . .	70
<u>Ulvalatuca</u> (Slides:Box 2) . . . . .	72
United States of America (Files 113,114) . . . . .	36,37
United States of America: genetics & plant breeding centres (File 114) . . . . .	37
University College of North Wales (File 112) . . . . .	34
University College, Swansea (File 106) . . . . .	28
University of Bath (File 127) . . . . .	42
University of Birmingham (Intro pp.2,3;Files 100,102,107,110,112,118,127,128,133,140; Box 5) . . . . .	Intro.pp.2,3;23,28-33,36,38,43,49,51,52,57
University of Birmingham Biological Society (File 128) . . . . .	43
University of Bristol (Box 5) . . . . .	64,65
University of California (Files 112,128) . . . . .	36,44
University of Cambridge, Botany School (File 112) . . . . .	31
University of Cambridge, Department of Genetics (File 120) . . . . .	39
University of Cambridge, School of Agriculture (Files 100,103,105,140) . . . . .	23,25,26,51
University of Leeds (File 140; Box 7) . . . . .	51,67
University of London (Intro p.2;Files 103,112,113; Box 7) . . . . .	24,25,32,35,37,67
University of Manchester (Intro p.2;Files 103,110,112) . . . . .	24,25,30,31,34,35
University of Oklahoma (File 97) . . . . .	22
University of Oxford (Files 106,103,112,121,140) . . . . .	27,31,32,40,51
University of Reading (File 112) . . . . .	33
University of Southampton (Intro p.3;File 111) . . . . .	30
University of Sussex (File 118) . . . . .	38
University of Wisconsin (File 104; Box 5) . . . . .	25,65
Variability (Files 43,115,132; Box 9) . . . . .	9,38,46,69,70
Variability and selection (File 115) . . . . .	38
Variation (Files 20-23,29,67,88,92,109,125,132,137,139; Box 9) . . . . .	

.....	50,69
Variation and heredity, Genetics, (File 109) .....	30
Variation and selection (Files 10,139; Box 6) .....	2,50,66
Variation, Chromosome (File 108) .....	29
Variation, Components of (File 88) .....	19
Variation, Continuous (Files 11,75-77,84,109,116,122,134,138) 2-3,17-18,30,38,40,50,59	
Variation, non-metrical, in mice, seals and men (File 125) .....	41
Variation, Parallel (File 114) .....	37
Variation, Polygenic (Files 1,3,5-8; Boxes 5,6) .....	1,2,57,65
Variation, Quantitative (Intro p.3; Files 11-12,30,92) .....	2,3,6,20
Variation, Tetrasomic (File 88) .....	19
Varietal differences in crossability of French beans (Box 6) .....	66
Varietal improvement, physiological constraints to (File 41) .....	9
Varietal standards in seed production (File 105) .....	26
Varietal trials (File 103) .....	25
Varieties in agriculture (File 43) .....	10
Varieties, New plant, raised at JIHI (Box 4) .....	56
Vavilov, NI (File 132) .....	47
<u>Verbena</u> (Box 6) .....	66,67
<u>Vicia</u> (Slides Box 1) .....	71
Virulence, Genetic aspects of (Ringbinder 5) .....	53
Virulence, mutation to, in plant pathogens (File 140) .....	51
<u>Vitis</u> (Slides:Box 2) .....	72
Wardlaw Lecture (File 43) .....	9
Washington University (Box 5) .....	65
Weather and plant disorders, Apples (Box 9) .....	70
Weather and plant disorders, Tomatoes (Box 9) .....	70
Weather and plant disorders, Tulips (Box 9) .....	70
Weldon Memorial Prize (File 106) .....	27
Wheat (File 43; Slides:Box 3) .....	10,73
Wheat, breeding (File 43) .....	10
Wheat breeding, objectives & prospects (File 43) .....	10
Wheat, dwarfing genes & breeding for yield in bread wheat (File 43) .....	10
Wheat, Winter, yields (File 43) .....	10
Wild populations (Ringbinder 5) .....	53
Winter Wheat, Yields (File 43) .....	10
Work study: use in agriculture (File 140) .....	51
X-rays (Box 8) .....	68
Yale University (File 104) .....	25
Yeast (Slides:Box 2) .....	72
<u>Zea mais</u> (Files 43,137; Boxes 2,6,9; Slides:Box 2) .....	72
Zoology, 15th International Congress of (File 140) .....	51,52

THE ARCHIVES OF PROFESSOR SIR KENNETH MATHER  
DONATED TO THE GENETICAL SOCIETY, 1991.

File no.1:

Caligari, P.D.S. and Mather, K. Competitive interactions in Drosophila melanogaster. IV. Chromosome assay. c.1987. Typescript, 35ff.  
Mather, K. and Caligari, P.D.S. Correspondence. 1987. Typescript, 2ff.  
Mather, K. Consequences of stabilizing selection for polygenic variation. (Heredity).n.d. Galley proof, 11ff.

File no.2:

Mather, K. Stabilizing Selection. Tables, graphs, notes. n.d. Holograph, 36ff.

File no.3:

Mather, K. Tables and formulae. n.d. Holograph: 1 spiral-bound notebook. 5pp.  
Pooni, H.S., et al. An investigation of gene action and genotype x environment interaction in two crosses of Nicotiana rustica by triple test cross and inbred line analysis. (Heredity, (1978), 41(1):83-92.)  
Pooni, H.S., et al. Method of analysis and the estimation of the genetic parameters from a diallel set of crosses. (Heredity, (1984), 52(2):243-253).  
Mather, K. Kimura derivation. n.d. (Holograph formulae: loose sheets from spiral-bound notepad. 28pp).  
Mather, K. Consequences of stabilizing selection for polygenic variations. n.d. Holograph. 26pp.  
Mather, K. Stabilising selection. (Tables, graphs, formulae). Holograph. 34pp.

File no.4:

Mather, K. Dominance and gene frequency. n.d. (pre-1981). Holograph notes, 6ff. Graphs, 7ff. (In brown envelope marked: "Professor Sir Kenneth Mather". A note on the front of the envelope is signed KM August 1986, and reads: "(These came to light in Aug 1986). Done at ?Lond several years before 1981 when my correspondence with Kimura began. My interest when doing these was not with stabilizing selection as such, but probably with analysis of hereditary variance round an optimum. There is a mistake somewhere in these analyses; but they are very reminiscent of (?sigma-u) - 2m/1-L-squared - 2mL. KM/Aug 1986.").

File no.5:

Mather, K. Consequences of stabilizing selection for polygenic variation. n.d. (post-1983). Typescript, 35ff. (In brown envelope marked: "Dr.Toledo.").

File no.6:

Mather, K. Consequences of Stabilizing Selection for Polygenic Variation. n.d. (Holograph), 19pp. (Also includes typed version, 1986, 34ff.)

Mather, K. Correspondence with L.M.Cook concerning above paper, June 1986.

Mather, K. Consequences of stabilizing selection for polygenic variation. 2nd draft. n.d. (Holograph and typescript). 11 graphs. 34ff.

File no.7:

Mather, K. Consequences of stabilizing selection for polygenic variation. Uncorrected copy. n.d. (Typescript), 36ff.

File no.8:

Mather, K. Consequences of stabilizing selection for polygenic variation. n.d. (Typescript), 35ff.

File no.9:

Genetics Dept. (V.M. Posnette). Current typing.

Mather, K. Odd pages of a paper. (Typescript), 10ff.

Mather, K. References. (Holograph), 8pp., Notes. (Holograph), 8pp. References and notes. (Holograph), 7ff. Captions for figures. (Holograph), 6ff., Calculations, graphs, etc. (Holograph), 8ff. Tables. (Holograph), 4ff. Notes and pages of ms. (Holograph and typescript), 6ff. Tables. (Holograph and Typescript), 3ff. Tables. (Holograph and typescript), 11ff.

Dean, G. The porphyrias. (Br.med.Bull., 1969, 25:48-51). (Photocopy).

Mather, K. Genetical structures and change of populations. Notes. (Holograph), 4ff.

Mather, K. Genetical structure of populations. 1970. (Holograph), 3ff.

Mather, K. "Chapter 8". (Holograph), 2ff.

Mather, K. Individuals and unity. (Holograph), 2ff.

Polani, P.E. Correspondence with K.Mather, May and June 1972, also two tables and reprints he sends Professor Mather:

Dhadial, R.K., and others. Chromosomal anomalies in spontaneously aborted human fetuses. (The Lancet, 1970, pp.20-21).

Polani, P. Chromosome anomalies and the brain. (Guy's Hospital Reports, 1967, 116:365-396).

Polani, P. The incidence of chromosomal malformations. (Proc.roy.Soc.Med., 1970, 63:50-52).

File no.10:

Mather, K. "GSP Chaps 1-3." (Manuscript of a book ?). Chapter 1: Variation and selection, etc. (Typescript), c.154ff excluding figures and references).

File no.11:

Mather, K. "James N Thunprus jr." : "Chapter...Historical Overview: Quantitative Variation and Polygenic Systems." n.d. Holograph and typescript, 35ff. Also, another draft, holograph, 22ff. Outline: holograph, 2ff.

Birley, A.J. Multi-locus polymorphism and selection in a population of *Drosophila melanogaster*. I. Linkage disequilibrium on Chromosome III. (Heredity, 1974, 32:122-127).

Mather, K. The genetical units of continuous variation. (Caryologia, 1954, 6(suppl.):106-123).

Towey, P. and Jinks, J.L. Alternative ways of estimating the number of genes in a polygenic system by genotype assay. (Heredity, 1977, 39:399-410).

Genetical Society. 184th meeting: programme. July 5th-7th, 1977. (Includes notes by Kenneth Mather for his "Introduction to general discussion"). Holograph, 2ff.

Thoday, J.M. The origin of genes found in selected lines. n.d., post 1964. Photocopy. 26ff.

File no.12:

Mather, K. Historical overview: quantitative variation and polygenic systems. n.d. Photocopy, 30ff.

Mather, K. Chapter: Historical overview: quantitative variation and polygenic systems. n.d. Typescript, 40ff.

Mather, K. Correspondence with publishers. 1978-79.

File no.13:

C & M (1980) Dominance, Allele Freq. & Selection.

Mather, K. 4 gene case: tables. n.d. Holograph, 11ff.

Mather, K. 6 gene case: tables. n.d. Holograph, 4ff.

Mather, K. 7 gene case: tables. n.d. Holograph, 3ff.

Mather, K. 10 gene case: tables. Holograph, n.d. 8ff.

File no.14:

Dominance Data.

Section 1 Pop. & Inbreds Means & Var. Tables. n.d. Holograph, 8ff.

Defined Diallel. Tables. n.d. Holograph, 21ff.

4 gene case: tables. n.d. Holograph, 5ff.

Dominance expt.: tables. n.d. Holograph, 4ff.

Nicotiana rustica: tables. n.d. Holograph, 9ff.

File no.15:

Caligari, P.D.S. and Mather, K. Genotype-environment interaction. III. Interactions in *Drosophila melanogaster*. Proc.R.Soc.Lond.B. 191:387-411.

Mather, K. Tables. n.d. Holograph, 8ff.

Mather, K. First draft: "Observations on ten miscellaneous inbred lines of *Drosophila melanogaster* have shown that their numbers of sternopleural chaetae were differently affected by changes in the temperature at which the flies were reared." n.d. holograph, 22ff.



File no.16:

Kew.

Mather, K. Graphs: dominance, sensitivity. n.d. Letraset, 3ff.

Mather, K. Tables: chaeta counts in Drosophila species. n.d. typescript & holograph, 4ff.

Mather, K. "Talking about an animal character - sternopleural chaetae number in D.m. More known about its cont. (?) var. than any other character in any species." Descriptions of slides. n.d. Holograph, 2ff.

Mather, K. Chaeta numbers - means of five flies: tables. n.d. Holograph, 3ff.

File no.17:

Hanks, M.J. and Mather, K. Genetics of coxal chaetae in Drosophila melanogaster. II. Responses to selection. 18.11.77. Reprint, 20pp.

Hanks, M.J. and Mather, K. Genetics of coxal chaetae in Drosophila melanogaster. Responses to selection. 18.11.77. Typescript, 26ff, and graphs.

File no.18:

Hanks, M.J. and Mather, K. Genetics of coxal chaetae in Drosophila melanogaster. II. Responses to selection. 1977. Typescript, 28ff. (Also correction pages, legends to text figures).

Mather, K. Correspondence with publishers. 1977-78.

File no.19:

"Coxals Selection Expts." Tables, notes, graphs. n.d. 55ff.

File no.20:

Mather, K. and Hanks, M.J. Genetics of coxal chaetae in Drosophila melanogaster. Variation in gene action. (Heredity, 1978,40:71-96).

Mather, K. and Hanks, M.J. Genetics of coxal chaetae in Drosophila melanogaster. Variation in gene action. 29.4.77. Typescript, 37ff, and graphs.

File no.21:

"Coxals I (carbon)". Mather, K. and Hanks, M.J. Genetics of coxal chaetae in Drosophila melanogaster. I. Variation in gene action. 1977. Holograph, 23ff. Tables: typescript, 8ff.

File no.22:

"Coxals Material for Paper I." Mather, K. and Hanks, M.J. Genetics of coxal chaetae in Drosophila melanogaster. I. Variations in gene action. 1977. Holograph, 19ff. Tables: holograph, 33ff., and correction pages: holograph, 7ff.

File no.23:

"Coxals Seminar. Mather, K. and Hanks, M.J. Genetics of coxal chaetae in Drosophila melanogaster. I. Variation in gene action. n.d.(Typescript, 37ff.).  
Hanks, M.J. and Mather, K. Genetics of coxal chaetae in Drosophila melanogaster. II. Responses to selection. n.d. Typescript, 25ff.  
Mather, K. Plates, graphs, figures, tables. n.d. 7ff.  
Mather, K. Lecture notes. n.d. Holograph, 4ff.  
Mather, K. Lecture notes. n.d. Holograph, 3ff.

File no.24:

Mather, K. "Coxals Nature draft." Genetic control of coxal chaetae in Drosophila melanogaster. n.d. (post-1975). Typescript, 15ff.  
Mather, K. Tables, graphs. n.d. Holograph, 23ff.

File no.25:

Mather, K. "Professor Mather Paper." Substitution lines: Mean chaetae numbers. Tables, graphs. n.d. Holograph, 12ff.

File no.26:

Mather, K. "Coxals - Original Data." Tables. n.d. Holograph, 9ff.

File no.27:

Mather, K. "Stud Vers - lists etc." Captions for figures and tables. n.d. Holograph, 9ff.

File no.28:

Mather, K. "I.B.G. Carbons of final draft." Legends to figures, Contents, Glossary of symbols and abbreviations, Tables. n.d. Holograph, 49ff.  
Also: Manuscript of "I.B.G." n.d. Typescript, 216ff. (and copies of most of the chapters.)

File no.29:

"Completion: Chromosome Assays."  
Mather, K. Tables. n.d. Holograph, 106pp.  
Birley, A.J., Couch, P.A. and Marson, A. Genetical variation for enzyme activity in a population of Drosophila melanogaster. VI. Reprint, Heredity, 1981, 47:185-196.  
Variation in the population 'Texas.' n.d. Holograph, 2ff.  
Caligari, P.D.S. and Mather, K. Competitive interactions in Drosophila melanogaster. IV. Chromosome assays. n.d. Holograph, 24ff.  
Caligari, P.D.S. and Mather, K. Competitive interactions in Drosophila melanogaster. IV. Chromosome assay. n.d. Holograph, photocopy, 30ff.  
Arthur, E. On the complexity of a simple environment: competition, resource partitioning and facilitation in a two-species Drosophila system. Reprint, Phil.Trans.R.Soc.Lond., 1986, B313:471-508.

File no.29: (contd.)

Caligari, P.D.S. and Mather, K. Competitive interactions in Drosophila melanogaster. IV. Chromosome assay. n.d. Typescript and photocopy of Holograph, 31ff. (Also, correspondence between K.Mather and P.D.S. Caligari, June-July 1987).

Mather, K. Tables. n.d. 65ff.

Mather, K. and McGill, Anne Competition in Drosophila. II. Homozygous lines. Reprint: Heredity, 1972, 28:393-397.

File no.30:

"Populations."

Mather, K. Tables. n.d. Holograph, 1p.

Hill, J. The three c's -competition, coexistence and coevolution - and their impact on the breeding of forage crop mixtures. n.d. Typescript, 21ff. (Includes letter from author to K.Mather, c.2.8.89.)

Mather, K. "Introduction": notes. n.d. Holograph, 13ff.

Boland, P.J. A biographical glimpse of William Sealy Gosset. 1983. Photocopy of a typescript, 14ff.

Mather, K. Correspondence with K.R.Khanna, National Botanical Research Institute, Rana Pratap Marg, Lucknow-226001, U.P., India. Sept.-Nov. 1982. (Includes K.Mather's notes and tables), typescript and holograph, 7ff.

Cavalli, L.L. An analysis of linkage in quantitative inheritance. n.d. Typescript, 7ff.

Mather, K. "Caligari 1981": tables. n.d. holograph, 5ff.

Robertson, A. Quantitative variation on the D.melanogaster fourth chromosome. c.1978. Carbon of typescript, 5ff. (Includes correspondence between A.Robertson and K.Mather, May 1978, 2ff.).

Mather, K. Notes. n.d. holograph, 5pp.

Mather, K. and Ingram, D.C. Correspondence. June 1971. Typescript, 4ff.

Mather, K. Tables. n.d. Holograph, 3ff.

Mather, K. The genetical structure of populations. Reprint, Symp.Soc.Exp.Biol., 1953, 7:66-95.

Smith, J.M. Letters to the editor: Genetic polymorphism in a varied environment. Photocopy of a reprint, Amer.Nat., 1970, 104:487-490.

Mather, K. and Ingram, D.C. Correspondence. Aug.-Oct.1970. (Includes notes by K.Mather and summaries of chapters of: "Genetical structure of populations."). Typescript and Holograph, 18ff.

File no.31:

"Paper II: 8 x 8: Diallel & 2nd paper."

Mather, K. Graphs, tables, text of paper. n.d. Holograph, c.220ff.

File no.32:

"Detection of Sex Linkage by Diallel."

Mather, K. Tables. n.d. Holograph, 144ff.

File no.33:

"4 x 4 Fly Diallel. OA OB Op + Stc." (A B & p are subscript).

Mather, K. Section 1 -Raw data. (2) - Scaling Tests, Generation Errors, Duplicate & Recip diffs., Errors of means of Generations derived from Gen. errors, Weights used for weighted least squares analysis. (3) - Weighted least squares scaling test.(4) - Analysis of [L] [d] & [i]. (5) - V, W, W' P + F1s P + F2s P + Bs. Also WV WW' regressions & correlations. (6) - Graphs of (5). Tables. n.d.

File no.34:

"Selection exp. I. High v. Low. II. High v. Mid. III. Low v. Mid, IV. Controls."

Mather, K. Tables. n.d. Holograph, 275ff.

File no.35:

Mather, K. and Jinks, J.L. Introduction to biometrical genetics.1977.

Photocopy of a typescript, 311ff. (Includes a letter from K.Grant of Chapman & Hall to K.Mather, 22.3.77).

File no.36:

"Michael Lawrence's Linkage.

Mather, K. and Lawrence, M.J. An intercross family with an unusual property. n.d. Two copies: copy no.1: Typescript and holograph, 16ff., copy no.2: typescript, 11ff.

Mather, K. X2 tests for linkage between two self-incompatibility loci, when the male and female parts have one allele in common at each locus, thus yielding only 12 genotypes in the offspring. n.d. Holograph, 2ff.

Mather, K. Notes on X2 test. n.d. Holograph, 3ff.

File no.37:

"Genetical Structure of Populations. (Completed Figs., Tables, Preface.)"

Mather, K. Genetical structure of populations. n.d. Typescript, 209pp. Includes correspondence with Chapman & Hall, March 1973. Typescript, 4ff.)

File no.38:

"Duplicated feral forms: Tables."

Mather, K. Correspondence with Chapman and Hall concerning "Introduction to biometrical genetics." Typescripts, 23.12.76 to 21.2.78. (Includes catalogues of new books, corrected sheets, specimen pages, etc.).



File no.39:

- Breese's Tetraploid Pairing. Correspondence between E.L.Breese, K.Mather and Dr.Dalton. 29.4.78 to 30.6.78. Holograph and typescripts, 11pp.
- Mather, K. Tables. n.d. Holograph, 4ff.
- Mather, K. First two experiments with lines C,D,H & I. December 1977. Holograph, 4ff.
- Mather, K. Competition. (Tables). n.d. Holograph-photocopy, 5ff.
- Mather, K. Direct measure of density. n.d. (Graphs), 6ff.
- Mather, K. Half food. (Graphs and tables), n.d. Holograph, 10ff.
- Mather, K. Interactions between individuals of like and unlike genotype in Drosophila. (1876-1978). (1st draft). Holograph, 5ff.
- Mather, K. Tetrasomic Inheritance with Preferential Pairing. n.d. Holograph-photocopy, 6ff.
- Mather, K. Tetrasomic Inheritance with Preferential Pairing: II-Double Reduction and Aneuploidy. 1977. Holograph-photocopy, 3pp. (Includes letter to E.L.Breese, 13.9.77.)
- Mather, K. Tetrasomic Inheritance and Preferential Pairing. III. Population properties with Double Reduction. 1977. Holograph-photocopy, 6ff. (Includes correspondence between K.Mather & E.L.Breese, 29.11.77, 5.12.77.)
- Mather, K. Tetrasomic Inheritance with Preferential Pairing. n.d. Holograph, 15ff.
- Mather, K. Uniformity & Stability of 4x Hybrids. 20.10.77. Holograph, 2ff.
- Mather, K. Gametic ?output of abCD neglecting aneuploidy. n.d. Holograph, 10ff.
- Mather, K. 2 allele case. n.d. holograph, 2ff.
- Mather, K. (Tables). n.d. Holograph, 3ff.
- Mather, K. Working for Tetrasomic inheritance with Preferential Pairing. n.d. Holograph, 12ff.
- Mather, K. Aneuploidy & double reduction. n.d. Holograph, 2ff
- Mather, K. Tables. n.d. Holograph, 4ff.
- Mather, K. Euploidy. n.d. Holograph, 5ff.
- Mather, K. Approach to equilibrium of r. n.d. Holograph, 2pp.
- Mather, K. Approach to equilibrium of s-2t. n.d. Holograph, 2ff.
- Breese, E.L. "E.L.Breese's data."  
Letters from E.L.Breese to K.Mather, Sept.-Nov.1977.
- Breese, E.L. Notes. n.d. Holograph, 4ff.
- Breese, E.L. and Thomas, A.C. Uniformity and stability of Lolium multiflorum x L.perenne allotetraploids. 1977. Typescript, 11ff.
- Breese, E.L. Movement towards equilibrium in autotetraploid populations. n.d. Typescript, 11ff.

File no.40:

- R.S.Discussion 29-30 Oct. '80: correspondence & final paper.  
Mather, K. Perspective and prospect. Phil.Trans.R.Soc. B, 1981, pp.1-9. (Proof).  
Mather, K. Perspective and prospect. 1980/81. Typescript, 17ff.  
Mather, K. Correspondence with G.D.H.Bell, E.L.Breese, J.L.Jinks and the Royal Society. 1980-81. Typescript & Holograph. (Also programmes of Meetings).

File no.41:

- "R.S. Discussion 29-30 October 1980.  
Mather, K. Perspective and Prospect. (2nd draft). n.d. Holograph, 10ff.  
Mather, K. Perspective and Prospect. (1st draft). n.d. Holograph, 11ff.  
Mather, K. Notes. n.d. Holograph, 11ff.  
Mather, K. Perspective and Prospect. n.d. Holograph, 10ff.  
Mather, K. Notes, (from 2 notepads). Holograph, 21ff.  
Royal Society. Draft timetable: The manipulation of genetic systems in plant breeding. 1980. Typescript, 3ff.  
Royal Society Discussion Meeting 29-30 October 1980. Abstracts. 1980. Typescript, 22ff.  
Cooper, J.P. Physiological constraints to varietal improvement. n.d. Carbon typescript, 15ff.

File no.42:

- "Triocultures."  
Mather, K. and Caligari, P.D.S. Correspondence. 1983.  
Caligari, P.D.S. and Mather, K. Competitive interactions in Drosophila melanogaster III. Triocultures. n.d. Typescript, 19ff.  
Caligari, P.D.S. and Mather, K. Competitive interaction in Drosophila melanogaster III. Triocultures. 1983. Photocopy of a holograph, 20ff.  
Mather, K. First draft. Introduction...n.d. Holograph, 17ff.  
Mather, K. Triocultures Experiment: tables, data, etc. n.d. Holograph, 46ff.

File no.43:

- "Wardlaw Lecture, Manchester 2.v.80."  
Mather, K. Correspondence with: E.C.Cocking, V.Watson, G.D.H.Bell, A.J.Thomson, V.Silvey and R.B.Austin, 1980.  
Mather, K. Notes on slides for a talk. n.d. Holograph, 8ff.  
Rogers, H.H. Plant breeding: recent achievements and future prospects. Span, 1978, 21:4pp.  
Simmonds, N.W. Costs and benefits of an agricultural research institute. R & D Management, 1974, 5:23-28.  
Patterson, H.D., Silvey, V., Talbot, M. and Weatherup, S.T.C. Variability of yields of cereal varieties in U.K. trials. J.agric.Sci.,Camb.,1977,89:239-245.

File no. 43: (contd.)

- Silvey, V. The contribution of new varieties to increasing cereal yield in England and Wales. *J.natn.Inst.agric.Bot.*, 1978, 14:367-384. (Two copies).
- Bingham, J. Wheat breeding objectives and prospects. *Agricultural Progress*, 1979, 17:1-17.
- Austin, R.B., and others. Genetic improvements in winter wheat yields since 1900 and associated physiological changes. *J.agric.Sci.,Camb.*, 1980, pp.1-15. (Two copies).
- Sandfaer, J. and Haahr, V. Barley Stripe Mosaic Virus and the yield of old and new barley varieties. *Z.Pflanzenzüchtg.*, 1975, 74:211-222.
- Duvick, D.N. Genetic rates of gain in hybrid maize yields during the past 40 years. *Maydica*, 1977, 22:187-196.
- Russell, W.A. Comparative performance for maize hybrids representing different eras of maize breeding. 29th Annual Corn & Sorghum Research Conference, pp.81-101. n.d.
- Jain, H.K. and Kulshrestha, V.P. Dwarfing genes and breeding for yield in bread wheat. *Z.Pflanzenzüchtg.*, 1976, 76:102-112.
- Gale, M. Towards super cereals. *New Scientist*, 1971, 31 Jan., pp.248-251.
- Plant Breeding Institute, Cambridge. Varieties in agriculture. 1980, pp.21.
- Austin, R.B. Actual and potential yields of wheat and barley in the United Kingdom. *ADAS Q.Rev.*, 1978, 29:76-87.

File no.44:

"First Lolium Paper."

- Mather, K. Tables. n.d. Holograph, 5ff.
- Mather, K., Hill, J. and Caligari, P.D.S. Analysis of a competition experiment with Perennial Rye-Grass (*Lolium perenne*). n.d. Holograph, 14ff. (Also, another, imperfect copy: n.d. Holograph, 16ff.)
- Mather, K. Tables. n.d. 20ff.
- Mather, K., Hill, J. and Caligari, P.D.S. Analysis of competitive ability among genotypes of Perennial Rye-grass. *Heredity*, 1982, 48:423-436.
- Mather, K., Hill, J. and Caligari, P.D.S. Analysis of a competition experiment with Perennial Rye-Grass. n.d. Typescript, 27ff.

File no.45:

"Hill's Competition. Lolium Experiment 1st Year.

- Mather, K. Tables. n.d. Holograph, 4ff.
- Mather, K. Graphs. n.d. Holograph, 1f.
- Mather, K. Matrices for Hill's Data. Tables. Holograph, 2pp.
- Mather, K. Monocultures & Two Races of Duocultures. Tables. n.d. Holograph, 1p.
- Mather, K. Where Monocultures of ?size 5 is included. Tables. n.d.Holograph, 1f.
- Mather, K. Hill's Expts. General [(i.e. with or without monoculture at X4 (duoculture at X4)]. n.d. Holograph, 2ff.
- Mather, K. Tables. n.d. Holograph, 1f.

File no.45: (contd.)

Mather, K. Hill's Data. First Year (Aug-Dec, 1971). Tables, 1971. Holograph, 5ff.

Mather, K. Monocultures & Two races of Duocultures. Tables. Holograph, 2ff.

Mather, K. Tables. n.d. Holograph, 7ff.

File no.46:

1st Lolium paper.

Mather, K., Hill, J. and Caligari, P.D.S. Analysis of a competition experiment with Perennial Rye-Grass. c.1982. Photocopied typescript, 26ff. (Includes no.46: correspondence between: Michael Lawrence, P.D.S.Caligari, D.R.Davies and K.Mather (contd.) and Referee's Comments).

File no.47:

1st Lolium Paper.

Correspondence between: P.D.S.Caligari, K.Mather, J.Hill, July-Nov.1981.

Mather, K. Figures, Graphs, Tables. n.d. Holograph, 55ff.

Mather, K., Hill, J and Caligari, P.D.S. Analysis of a competition experiment with Perennial Rye-Grass. c.1981. Photocopied typescript, 24ff.

Mather, K., Hill, J. and Caligari, P.D.S. Analysis of a competition experiment with Perennial Rye-Grass. c.1981. Holograph, 22ff.

Mather, K. 1980-81 Competition data. 1981. Holograph, 7ff.

Mather, K. 1980-81 Omitting lowest Monoculture. 1981. Holograph, 9ff.

File no.48:

R.S.S. Birmingham Group 4.x.79.

Mather, K. (Talk, with slides, on R.A.Fisher). 4.10.79. Holograph, 5ff.

File no.49:

Caligari, P.D.S. Analysis of the results of the Lolium experiment. (Including correspondence between K.Mather, P.D.S.Caligari and J.Hill). c.1985. Typescript, 22ff.

Mather, K. Tables, graphs. n.d. Holograph, 6ff.

File no.50:

Caligari, P.D.S. The selectively optimal phenotypes of the coxal chaetae in Drosophila melanogaster. 1980. Photocopied typescript, 14ff. (Also, notes, tables).



File no.51:

"Competition [Soton Data]."

Mather, K. (?). Tables. n.d. Holograph, 19ff.

Mather, K. 1 gene coil with maternal effects. Tables. n.d. Holograph, 7pp.

Mather, K. Soton Competition Expts. - Chromosome Substitution lines & 6 CL. Tables. n.d. Holograph, 17pp.

McGill, A. Competition in Drosophila. III. A possible maternal effect. n.d. Typescript, 11ff.

Mather, K. et al. (?). Tables. n.d. Holograph, 8ff.

Mather, K. (?). Tables. n.d. Holograph, 9ff.

File no.52:

Mather, K. Tables: "Diallel between lines, Assay (Matherwise), Parameters estimated by 3 x 3 breakdown, Analysis of variance of diallel, Variances & Covariances (observed & expected), D & Hs determined by least squares". n.d. Holograph, 37ff.

Mather, K. Bartlett. Tables. n.d. Holograph, 9ff.

Mather, K. Tables. n.d. Holograph, 5ff.

Mather, K. Female offspring averaged over recipcs, Mean chaeta number of female offspring, averaged over blocks, Analysis of Variance of the diallell, Results, Rough diallel paper. n.d. Holograph, 13ff.

Mather, K. Correlations. Limiting Parabola. n.d. Holograph, 13ff.

Mather, K. Tables, Section I: Construction of Lines, Values of family means: Tables. n.d. Holograph, 34ff.

Cooke, P. and Jinks, J.L. A critical assessment of diallel assay of inbred lines. I. With random gene distribution. n.d. Holograph, 37pp.

File no.53:

"Have ready by Tues 27th August."

Hill, J., Mather, K. and Caligari, P.D.S. Analysis of competitive ability among genotypes of perennial rye-grass: effect upon survival. n.d. (post 1983). Typescript, 22ff.

Hill, J., Mather, K. and Caligari, P.D.S. Analysis of competitive ability among genotypes of perennial rye-grass: effect upon dry matter production. n.d. (post 1986). Typescript, 17ff.

Mather, K., Jinks, J.L., Hill, J. and Beament, J. Correspondence, and referee's comments on the papers submitted to "Journal of agricultural science." 1986. Typescripts, 4ff.

File no.54:

"PDSC early selection in potatoes."

Brown, J., Caligari, P.D.S., Mackay, G.R. and Swan, G.E.L. The efficiency of seedling selection in a potato breeding programme. I.- Visual preference. n.d., (post 1982), typescript, 22ff.

Caligari, P.D.S. Letter to Kenneth Mather, 27.1.84, (Includes note by K.Mather). Typescript & holograph, 2ff.

File no.55:

"PDSC Competition in barley."

Powell, W., Caligari, P.D.S., Goudappel, P. and Thomas, W.T.B.

Competitive effects in monocultures and mixtures of spring barley (Hordeum vulgare). n.d. (post 1984), Typescript, 22ff.

Caligari, P.D.S. Letter to K.Mather, 11.4.85. Typescript, 1f.

File no.56:

"PDSC pot. expt."

Caligari, P.D.S., Brown, J. and Manhood, C.A.The effect of varying numbers of drills and replicates on the efficiency of potato yield trials. n.d. (post 1981). Typescript, 14ff.

Caligari, P.D.S. Letter to K.Mather. 28.11.83. Typescript, 1f.

File no.57:

"PDSC Nematodes."

Caligari, P.D.S. and Phillips, M.S.

A re-examination of apparent selection in Globodera pallida on Solanum vernei hybrids. n.d. (post 1984). Typescript, 7ff. (Includes letter from P.D.S. Caligari to K.Mather, 15.10.83, and note by K.Mather). Holograph, 3ff.

Turner, S.J., Stone, A.R. and Perry, J.N. Selection of potato cyst-nematodes on resistant Solanum vernei hybrids. n.d. (post 1982), Typescript, 12ff.

Stone, A.R. and Turner, S.J. The nature of resistance to potato cyst-nematodes.n.d. (post 1979), typescript, 2ff.

Caligari, P.D.S., Mackay, G.R., Stewart, H.E. and Wastie, R.L. A seedling progeny test for resistance to potato foliage blight (Phytophthora infestans (Mont.) de Bary). n.d. (post 1983), typescript, 14ff.

File no.58:

Hill, J., Mather, K. and Caligari, P.D.S. Analysis of competitive ability genotypes of perennial rye-grass. I. Effect upon survival. II. Effect upon dry matter production. c.1985. Typescript, 3ff.

Hill, J., Mather, K., Caligari, P.D.S., Ridgman, W.J. Correspondence concerning the above paper. December 1985. Typescripts, 4ff.

File no.59:

Caligari, P.D.S. and Powell, W. The effects of competitive interactions on variances and on seed germination in spring barley (Hordeum vulgare). n.d. (post 1986). Typescript, 11ff. (Includes letter from P.D.S.Caligari to K.Mather, 14.10.85). Typescript, 1f.

File no.60:

"Chirwa Thesis (MSc)."

4. Results and discussion. c.1985. Holograph (photocopy), 36ff. (Includes a letter from "John" to K.Mather: "Herewith a copy of the final two sections from Rowland's M.Sc. thesis..."), 9.4.85. Holograph (photocopy), 1f.

File no.61:

"John Hills' student's data."

Chirwa, R.M. Correspondence concerning R.Chirwa's application to the British Council for funds. Correspondence between: J.Hill and K.Mather, February 1985. Holograph and typescript, 4ff.

Tables, n.d. Computer printout, 10ff.

Hill, J. Data from the first harvest year of the perennial rye-grass/white clover experiment. 1984. Holograph, 6ff.

Chirwa, R. Letter to K.Mather. n.d. holograph, 1f.

File no.62:

Mather, K. and Lawrence, W.J.C. Morley Benjamin Crane, 17 March 1890 - 17 September 1983, elected FRS 1947. c.1984. Holograph and typescript, 35ff.

Mather, K. Letter to W.J.C.Lawrence concerning obituary on M.B.Crane. 19.6.84. Typescript, 1f.

File no.63:

"Hill's Data. Hill's Rye Competition (3 yrs.)."

Tables. n.d. Holograph (photocopy), 6ff.

Results and Analysis. n.d. Typescript, 21ff.

Results and Analysis. n.d. Holograph, 11ff.

Tables, n.d. Holograph, 28ff.

L.perenne - 3 years.

Tables, n.d. Holograph, 18ff.

Wallace, H. Chiasmata have no effect on fertility. Heredity, 1974, vol.33,pp.423-429.

Mather, K. and Caligari, P.D.S. Pressure and response in competitive interactions. Heredity, 1983, vol.51:435-454. Tables, n.d. Holograph, 21ff.

Lolium Experiment working for 4 ? yrs." Tables, 1981-2. Holograph (photocopy), 7ff. (Includes letter from John Hill to Kenneth Mather, 3.4.84. Holograph, 1f.)

Mather, K. Correspondence with: J.Hill, P.D.S.Caligari, 1983. Holograph & typescript, 5ff.

Hill, J. First year's results of the competition experiment. Tables. n.d. Holograph (photocopy), 7ff.

Mather, K. Tables. n.d. Holograph, photocopy, 8ff.

Hill, J. Estimates from John Hill's data. n.d. Holograph, 32ff.

Mather, K. Tables. n.d. Holograph, 18ff.

File no.63: (contd.)

Mather, K., Hill, J. and Caligari, P.D.S. Analysis of competitive ability among genotypes of perennial rye-grass. (Heredity, 1982, 48:421-434).

Mather, K. Tables. n.d. Holograph, 13ff.

Mather, K. Tables. n.d. Holograph, 16ff.

Mather, K. Tables. n.d. Holograph, 9ff.

Mather, K. Error Variances for Survival (px), Bartlett Tests. 4.2.85. Printout, 7ff.

Hill, J. Letter to K.Mather, 18.3.83. Holograph, 1f.

Glossary of formulae. n.d. Typescript and Holograph, 93ff.

File no.64:

On coadaptation in plants. Manuscript with text notes by K.Mather, also one page of notes on ms. by K.Mather. n.d. TS & holograph, 14ff.

File no.65:

Competition.

Prout, T. and McChesney, F. Competition among immatures affects their fertility when they grow up: population dynamics. c.1985. Includes a letter, (16.10.84), from P.D.S.Caligari to K.Mather offering him a copy of the above manuscript. TS, 89ff.

File no.66:

Hill, J., Mather, K. and Caligari, P.D.S.

Analysis of competitive ability among genotypes of perennial rye-grass. I. Effect upon survival. II. Effect upon dry matter production. Manuscripts, c.1985, TS, 40ff. (Includes a letter from J.Hill to K.Mather concerning these manuscripts, 15.10.85, holograph, 1f., and a letter from J.Hill to Sir James Beament), n.d., holograph, 1f.

File no.67:

Mather, K. and Caligari, P.D.S. Pressure and response in competitive interactions.(Heredity, 1983, 51:435-454).

Caligari, P.D.S. Note to K.Mather. 17.2.84. Holograph, 1f.

Mather, K. Letter to P.D.S.Caligari. 21.2.84. Holograph, 1f.

Caligari, P.D.S. and Mather, K. Competitive interactions in Drosophila melanogaster III. Triocultures. 9.11.83. Proof, 11ff.

Eggleston, P. Letter to K.Mather. n.d. Holograph, 1f.

Eggleston, P. Variation for aggression and response in the competitive interactions of Drosophila melanogaster. n.d. (post-1983). Typescript, 29ff.



File no.68:

Hill, J., Mather, K., Chirwa, R.M. and Caligari, P.D.S. The analysis of competitive ability in forage crops. n.d. (post-1985). Typescript, 12ff.

Mather, K. Letter to J.Hill. 18.8.83. Holograph, 1f.

Spitters, C.J.T. An alternative approach to the analysis of mixed cropping experiments. 1. Estimation of competition effects. (Neth.J.agric.Sci.,1983, 31:1-11.)

File no.69:

John Hill's Clover/Rye-grass Draft.

Hill, J. Letter to K.Mather. 17.6.37. (Includes notes by K.Mather). Holograph, 1f.

Hill, J. and Michaelson-Yeates, T.P.T. The measurement and analysis of competitive ability in white clover-perennial rye-grass mixtures. n.d. (post-1987). Typescript, 21ff.

File no.70:

Spitter's paper from John Hill.

Hill, J. Letter to K.Mather. 15.9.83. Holograph, 1f.

File no.71:

Books - GSP.

Mather, K. Correspondence with publishers, mostly concerning his books, (particularly: Chapman & Hall, Cambridge University Press, John Murray, Associated Book Publishers Ltd.). Individual correspondents include: V.Anderson, R.J.Berry, C.V.Branson, B.Cateland, A.Crowden, J.Deeks, E.Devis, F.A.M.Duarte, D.C.Ingram, J.L.Jinks, N.Jones, P.J.Kaltsikes, A.Mitchell, M.A.Ommanney, A.Ray, V.H.Scobie, Robin Smith, R.E.F.Smith, R.Stileman, J.W.Templeton. 1973-1989. Typescripts.

Berry, R.J. The Shetland fauna, its significance or lack thereof. Reprinted from "The natural environment of Shetland" proceedings of the Nature Conservancy Council Symposium...Edinburgh, 29-30 Jan.1974; edited by R.Goodier.,pp.151-163. Typescript.

File no.72:

"John Innes. J.I. Material."

Woolhouse, H.W. Letter to K.Mather. 26.1.84. Typescript, 1f.

Mather, K. Letter to H.W.Woolhouse. 2.2.84. Typescript, 1f.

Crane, M.B. Photocopies of portrait photographs. n.d. 7ff.

Brown, A.G. and Crane, M.B. Dr.B.J.Harrison interviewing A.G.Brown (concerning his career at John Innes). (Transcript of an audiocassette). n.d. Typescript, 12ff.

Crane, M.B. Correspondence concerning the resignation of M.B.Crane. Correspondence with C.D.Darlington, F.C.Stern, The Chairman, Trustees & Council of the JIHI, R.A.Fisher, Courthope, E.A., Sir William Slater, Pearson, T.E., Davies, G.R. Dec.1952 - Feb.1953. typescripts, 17ff.

Bateson Letters. Photocopies from the JI Collection of Bateson Letters, including: List of staff and others working at the JIHI at present engaged in War Service, correspondence between: W.Bateson, M.B.Crane, Employment Exchange, C.H.Ostenfeld, B.T.Rumble, C.A.Jorgensen, J.P.Lotsy, R.G.Hatton, JIHI: salaries paid to Laboratory Staff, Garden Superintendent, etc. 24.6.22. 1915-1925. Photocopies: typescripts & holographs, 31ff.

Lawrence, W.J.C. Letter to K.Mather concerning JI fruit trees. 27.1.84. Holograph, 2pp.

File no.73:

Mather, K. and Lawrence, W.J.C. Morley Benjamin Crane 17 March 1890 - 17 September 1983. Second revision, and 2 other versions. n.d. typescript, 27ff, 27ff., 18ff.

File no.74:

Mather, K. Tables and graphs. n.d. Holograph, 17ff.

Hayman. Tables.n.d. 6ff.

File no.75:

"Genetical Analysis of Continuous Variation. Chapter 1."

Mather, K. Work on Drosophila melanogaster. Tables. n.d. Holograph,8ff.

Mather, K. Work on Nicotiana rustica. c.1975. Holograph, 4ff.

Mather, K. Continuous variation. n.d. Holograph, 21ff.

File no.76:

"GACV Chapter 2."

Mather, K. Tables. n.d. Holograph, 3ff.

Mather, K. Chapter 2. Components of variation. n.d. Holograph, 9ff.

File no.77:

"GACV Chapter 3. For Vera."

Mather, K. Tables (on Drosophila and Nicotiana rustica.) n.d. Holograph, 9ff.

Mather, K. Chapter 3: Additive and dominance effects. n.d. Holograph, 31ff.

File no.78:

"Chapter 4. Diallels."

Mather, K. Tables.(On Drosophila). n.d. Holograph, 17ff.

Mather, K. Chapter 4: Diallels. n.d. Holograph, 18ff.

File no.79:

"Chapter 5. Students Version. Interaction and linkage."

Mather, K. Tables. (On Nicotiana rustica). n.d. Holograph, 15ff.

Mather, K. Chapter 5. n.d. Holograph, 29ff.

File no.80:

"Chapter 6. G E Intercessions."

Mather, K. Tables. n.d. Holograph, 12ff.

Mather, K. Chapter 6. Interactions of genotype and environment. n.d. Holograph, 17ff. (Another copy,with tables, in a separate envelope: n.d. Holograph, 38ff.).

File no.81:

"Chapter 7."

Mather, K. Text, with tables. n.d. Holograph, 48ff.

File no.82:

"Chapter 8."

Mather, K. Chapter 8. Genes and effective factors. (Text and tables). Holograph, n.d. Holograph, 11ff.

File no.83:

"Chapter 9."

Mather, K. Chapter 9. Conclusion. n.d. Holograph, 13ff.

File no.84:

"G.A.C.V. Chapter 5,6. Spare copies."

Mather, K. Chapter 5.n.d. Typescript, 29ff.

Mather, K. Chapter 6: Interaction of genotype and environment. n.d. Typescript, 28ff.

File no.85:

Mather, K. Tables: Nicotiana rustica, etc. n.d. Holograph, 23ff.

File no.86:

"Studs. Vers. Tables 1st draft & Figs data for."

Mather, K. and Harrison. Tables, graphs, some on Drosophila. n.d. Holograph, 35ff.

File no.87:

Mather, K. and Caligari, P.D.S. Competitive interactions in Drosophila melanogaster. II. Measurement of competition. (Heredity, 1981,46:239-254).

Mather, K. and Caligari, P.D.S. Competition interactions in Drosophila melanogaster. II. Measurement of competition. (includes tables). n.d. Holograph, 66ff.

File no.88:

"Dr.A.J.Wright Components of variation rf (?) tetrasomic etc."

Wright, A.J. The use of differential coefficients in the development and interpretation of quantitative genetic models. 1978. Typescript, 7ff.

Mather, K. Correspondence with: A.J.Wright, 1978-79. Typescript & Holograph, 4ff.

Mather, K. Tables. n.d. Holograph, 2pp.

"Le modele statistique." n.d. Typescript, 4pp.

Mather, K. Notes. 1978. Holograph, 3ff.

Dalebroux, M. An extension of the use of orthogonal coefficients in partitioning genetic variances. n.d. (Reprint), 5pp.

Li, C.C. The genetic variance of autotetraploids with two alleles. n.d. (Reprint), 10pp.

Li, C.C. Repeated linear regression and variance components of a population with binomial frequencies. (Biometrics, June 1957, pp.225-233.)

Wright, A.J. Rough draft of paper on the derivation of components of genetic variation in random mating populations. 1978. Typescript, 4ff.

Mather, K. (Attached to letter of 23.8.78 to Dr.A.J.Wright). Equivalence of Taylor Series and polynomial regression. 1978. Holograph, 3ff.

Mather, K. Tables. n.d. Holograph, 12ff.

File no.89:

"F1 hybrids from open pollinating populations."

Mather, K. Correspondence with Linskens, H.F., (Springer Verlag). August 1985. Typescript, 2ff.

File no.90:

Callow, R.S. Comments on Dr.Bennett's model of somatic chromosome disposition. n.d. (post-1984). Typescript, 15ff.

File no.91:

Mather, K. Response to selection. (Proof), n.d. pp.155-221.



File no.92:

- Jong, G. de and Scharloo, W. Environmental determination of selective significance or neutrality of amylase variants in Drosophila melanogaster. (Genetics, 1976, 84:77-94.)
- Durrant, A. and Mather, K. Heritable variation in a long inbred line of Drosophila. (Genetica, 1954, 27:97-119). (Includes tables by K.Mather, holograph, 4ff.).
- Paxman, G.J. A study of spontaneous mutation in Drosophila melanogaster. (Genetica, 1957, 29:39-57).
- Mather, K. and Wigan, L.G. The selection of invisible mutations. (Proc.R.Soc.,B, 1942,131:50-64).
- Mather, K. Variation and selection of polygenic characters. (Journal of Genetics, 1941,41:159-193).
- Wigan, L.G. and Mather, K. Correlated response to the selection of polygenic characters. (Annals of Eugenics, 1942, 11:354-364).
- Sismandis, A. Selection for an almost invariable character in Drosophila. (Journal of Genetics, 1942, 44:204-215).
- Mather, K. and Harrison, B.J. The manifold effect of selection. (Heredity, 1949, 3:1-52)
- Rasmuson, M. Selection for bristle numbers in some unrelated strains of Drosophila melanogaster. (Acta Zoologica, 1955, 36:1-49).
- Scharloo, W. The influence of selection and temperature on a mutant character (CID) in Drosophila melanogaster. (Archives neerlandaises de Zoologie, 1962, 14:431-512).
- Frankham, R., et al. Unequal crossing-over at the rNA locus as a source of quantitative genetic variation. (Nature, 1978, 272:80-81).
- Scharloo, W. Temperature and mutant expression. (Experientia, 1961, 17:121).
- Scharloo, W., et al. Stabilizing and disruptive selection on a mutant character in Drosophila. I. (Genetics, 1967, 56:709-726).
- Scharloo, W. Stabilizing and disruptive selection on a mutant character in Drosophila. II. (Genetics, 1970, 65:681-691).
- Scharloo, W. Stabilizing and disruptive selection on a mutant character in Drosophila. III. (Genetics, 1970, 65:693-701).
- Scharloo, W., et al. Stabilizing and disruptive selection on a mutant character in Drosophila. IV. (Genetics, 1972, 71:551-566).
- Bos, M. and Scharloo, W. The effects of disruptive and stabilizing selection on body size in Drosophila melanogaster. I. (Genetics, 1973, 75:679-693).
- Bos, M. and Scharloo, W. The effects of disruptive and stabilizing selection on body size in Drosophila melanogaster. II. (Genetics, 1973, 75:695-708).
- Bos, M. and Scharloo, W. The effects of disruptive and stabilizing selection on body size in Drosophila melanogaster. III. (Genetica, 1974, 45:71-90).

File no.92: (contd.)

- Scharloo, W., et al. Functional aspects of genetic variation. (Reprinted from: Christiansen, F.B. and Fenchel, T.M. Measuring selection in natural populations. 1977, pp.131-147).
- Dijken, F.R.van, et al. Influences of anaesthesia by carbon dioxide and ether on locomotor activity in Drosophila melanogaster. (Experientia, 1977, 33:1360).
- Jong, G.de, et al. Frequencies of amylase variants in Drosophila melanogaster. (Nature, 1972, 238:453-454).
- Thorig, G.E.W., et al. Variation between electrophoretically identical alleles at the alcohol dehydrogenase locus in Drosophila melanogaster. (Biochemical Genetics, 1975, 13:721-731).
- Scharloo, W. The effect of disruptive and stabilizing selection on the expression of a cubitus disruptus mutant in Drosophila. (Genetics, 1964, 50:553-562).
- Scharloo, W., et al. Disruptive selection on sternopleural chaeta number in Drosophila melanogaster. (Genet. Res., Camb., 1967, 9:15-118).

File no.93:

"Biol of Dros. Misc Material."

- Robertson, A., et al. Notes written by K.Mather. c.1957. Holograph, 13ff.
- Skibinski, D.O.F. and Thoday, J.M. Disrupted seln (?) with fixed optimum. (Notes by K.Mather). 1979, holograph, 2ff.
- Thoday. Disrupted seln (?), (Nature, 1958, 181:1124-5.) (Notes by K.Mather). Holograph, 2ff.
- Robertson & Reed. (and others): Notes. n.d. Holograph, 4ff.
- Mather, K. Notes. n.d. Holograph, 16ff.
- Mather, K. Notes: references. n.d. Holograph, 2pp.
- Mather, K. Notes. n.d. Holograph, 2ff.
- Minawa, A. and Birley, A.J. The genetical response to natural selection by varied environments. I. Short-term observations. (Heredity, 1978, 40:39-50).
- Robertson, A. Letter to K.Mather, including a list of Robertson's papers on Drosophila. 2.8.78. Holograph & typescript, 2ff.
- Robertson, F.W. Studies in quantitative inheritance.V. (photocopy of 2 pages). (J.Genetics, 1954, 52:503,511).
- Mather, K. Tables and graphs. n.d. Holograph, 15ff.
- Mather, K. Stabilizing selection. Notes. n.d. Holograph, 12ff.
- Scharloo, W. Notes by K.Mather on Scharloo's papers. n.d. Holograph, 5ff.
- Wright, S. Evolution and the genetics of populations. vol.3. Experimental results and evolutionary deductions. Notes by K.Mather. 1977. Holograph, 5ff.
- Mather, K. and Robertson, Alan. Correspondence. May, July 1978. Holograph, 3pp.
- Mather, K. Data from Wright, S., 1977. Evolution & the genetics of populations. (University of Chicago Press), vol.3. Table 88. Holograph, 2ff.

File no.94:

"1st Draft."

Mather, K. Manuscript beginning: "The very early days of genetics, even before Drosophila melanogaster established itself as an organism for genetical investigations, saw a number of selection experiments being undertaken..." "Response to selection". n.d. Holograph, 55ff.

File no.95:

"Biol. of Dros. 2nd Draft."

Mather, K. "Response to selection." n.d. Holograph, 61ff.

File no.96:

"Response to Seln (Biol of Dros) Figures."

Figures. n.d. 10 slides, prints of 12 figures.

File no.97:

"G & B o D Response to Seln Correspondence & Permissions."

Mather, K. Correspondence with: L.J.Thorne (Academic Press), J.N.Thompson (University of Oklahoma), R.Altoft (Academic Press), R.A.Farrand (Academic Press), 7.1.79 to 25.1.83. Typescripts, 22ff.

Mather, K. Requests for permission to reproduce figures from other papers for K.Mather's work: "Response to selection" in: "Genetics and biology of Drosophila", vol.3. 1980. Printed forms, and notes. 27ff.

Ashburner, M., et al. The genetics and biology of Drosophila. vol.3. Chapter outline, addresses of senior chapter authors, contents. 1978. typescript, 9ff.

Mather, K. Response to selection. n.d. Holograph.

File no.98:

"Response to Selection (Biol of Dros). Final Script (figures in a separate folder)."

Mather, K. Response to selection. n.d. Typescript, 118ff.

Mather, K. Correspondence concerning: "Response to selection" with J.N.Thompson, 31.12.81, 20.1.82, 26.4.82, 7.5.82; reviews and criticisms of paper, n.d. typescript, 3ff.; correspondence concerning "Response to selection " with J.Mugridge, (Academic Press), 14.5.82, 17.5.82, 13.9.82.n.d. Holograph, 13ff.

File no.99:

Mather, K. Genetics. n.d. (post 1960). Reprint: pp.47-94. (3 copies).

Bateson, W. The methods and scope of genetics: an inaugural lecture delivered 23 October 1908. Cambridge University Press. Photocopied reprint, 49pp.

Mather, K. John Leonard Jinks 21 October 1929 - 6 June 1987. n.d. Typescript, 40ff.

File no.100:

"Batesoniana." Includes the following letters:

Mather, K. Letter, from the University of Birmingham, Dept.of Genetics, Birmingham B15 2TT, to B.J.Harrison. 17.2.81. 2ff.

Hurst, C.C. Letter, from Burbage, Leicestershire, to W.Bateson. 11.12.05. 4ff.

Austin, G. Letter, c/o Sporting Life, 27 St.Bride Street, London, EC. 17.6.09. 1f.

Bateson, W. (?) Letter to F.L.Engledow. 29.5.25(?). 1f.

Engledow, F.L. Letter, from School of Agriculture, Cambridge, to W.Bateson. 2.6.25. 2ff.

File no.101:

Institution and Superannuation.

Mather, K. Letter to A.D.Hall, enclosing a short account of the 1935 Antirrhinum results: Antirrhinum majus. 4.10.35. 3ff.

C.C.Preliminary Meeting, 8.7.37. Programme of genetical work, and recommendations. 8.7.37. 3ff.

Rumble, B.T. Letter to K.Mather, confirming his appointment as Geneticist at the John Innes Horticultural Institution. 30.7.37. 1f.

Hall, A.D. Letter to K.Mather. 18.12.37. 1f.

Mather, K. Letter to A.D.Hall, (saying "he really looks forward to being a member of staff of the John Innes"). 25.1.38. 1f.

Hall, A.D. Letter to K.Mather. 7.3.38. 1f.

File no.102:

Correspondence between F.C.Stern and K.Mather concerning the Directorship of the JIHI.

Stern, F.C. Letter, from Highdown, Goring-by-Sea, Sussex, to K.Mather, (asking if Mather would consider allowing Stern to put forward Mather's name to the Council as Director of the John Innes). (C.D.Darlington had been appointed Professor of Botany at Oxford). 7.2.53. 3pp.

Mather, K. Letter to F.C.Stern, stating the reasons which would make it difficult for him to leave the University of Birmingham in order to come to the JIHI). 12.2.53. 2pp.

Stern, F.C. Letter, from Highdown, Goring-by-Sea, Sussex, to K.Mather. 14.2.53. 2pp.

Stern, F.C. Letter, from 6,Angel Court, Throgmorton Street, London, E.C.2, to K.Mather. 18.2.53. 2pp.

Mather, K. Draft of a letter to F.C.Stern. 19.2.53. 1p.

Stern, F.C. Letter, from 6,Angel Court, Throgmorton Street, E.C.2, to K.Mather. 20.2.53. 1p.

Stern F.C. Letter, from Highdown, Goring-by-Sea, Sussex, to K.Mather. 1.3.53. 2pp.

Mather, K. Letter, from Edgbaston, to F.C.Stern. 2.3.53. 1f.

File no.102: (contd.)

Mather, K. Letter to F.C.Stern, (saying that:"for various reasons including financial considerations, my son's education, my wife's position, and the aims of the John Innes' research as set out in the advertisement, I have come to the conclusion that I should stay in Birmingham.") 27.3.53. 1f.

Stern, F.C. Letter, from Highdown, Goring-by-Sea, Sussex, to K.Mather. 29.3.53. 2pp.

Mather, K. Letter to F.C.Stern, (saying: "...my primary aim is to advance genetics for its own sake rather than because of its applications to plant breeding..."). 14.4.53. 1f.

File no.103:

"From the 1930's chiefly."

Victoria University of Manchester. Certificate that Kenneth Mather has been admitted to the Degree of Bachelor of Science, Botany. 18.1.32.

1f.

Greig, C.M. Letter, from University of London, South Kensington, S.W.7, to K.Mather, (including certificate of Exemption from Matriculation Examination). 30.3.32. 2ff.

Mather, K. Cheques, Barclays Bank Limited, 333, Kingston Road, West Wimbledon, S.W.20, for £8 (30.10.33), £2 (10.11.33) and £1 (22.11.33). 3ff.

Haldane, J.B.S. Letter, from John Innes Horticultural Institution, to K.Mather. 26 Nov. 1f.

Mather, K. Cheques to Barclays Bank, 333 Kingston Rd., Wimbledon SW 20, for £12-10s. 1.12.33. 1f.

Worsley, S.C. Letter, from University of London, South Kensington, SW 7, to K.Mather (conferring upon him the degree of Doctor of Philosophy [Botany]). 21.12.33.

Mather, K. Cheque, to Barclays Bank, 333, Kingston Rd., West Wimbledon, SW 20, for £21. 15.9.33. 1f.

Read, A.M. Letter, from University of London, South Kensington, London, SW 7, to K.Mather, (informing him that the Examiners have reported that his thesis is suitable for publication in an abridged form). 21.12.33. 1f.

Fisher, R.A. Letter, from the Galton Laboratory, University of London, University College, Gower St., London WC 1, to K.Mather (informing Mather of a vacancy for a junior geneticist at Galton Laboratory). 20.4.34. 2ff.

Fisher, R.A. Letter, from Galton Laboratory, Gower St., London WC 1, to K.Mather, (concerning appointment of junior geneticist at Galton Laboratory). 1.5.34. 3ff.

Fisher, R.A. Letter, from Galton Laboratory, Gower St., London, WC 1, to K.Mather, (offering Mather the appointment as junior geneticist at the Galton Laboratory, and discussing theories of dominance and the work of Harland and Hutchinson. 18.5.34. 4ff.



File no.103: (contd.)

Hall, A.D. Letter, from John Innes Horticultural Institution, to K.Mather, discussing whether he should stay at JIHI or take up appointment as junior geneticist at Galton Laboratory). 2.6.34. 3pp.

Dorie, C. (?) Letter, from University of London, University College, Gower Street, London WC 1, to K.Mather, (offering him the post of Assistant Lecturer in the Department of Eugenics at University College, and including terms of employment). 4.7.34. 3pp.

Watkins, A.E. Letter, from School of Agriculture, Cambridge, to K.Mather, (informing him of the possibility of a post where the work would involve breeding some new species of Brassica). 15.8.34. 4pp.

Rumble, B.T. Conditions of Work at the John Innes Horticultural Institution, Appointment of member of staff of the John Innes Horticultural Institution, (K.Mather). 29.3.38. 2ff.

Lamm, R. (?). Letter, from Åkarp, Alnarp, Sweden, to K.Mather, (discussing a new method of arranging varietal trials). 14.8.38. 2ff.

Felton, B.I. Letter, from Sugar Commission, Queen Anne's Chambers, 41, Tothill St., London SW 1, to K.Mather, (suggesting that, in the current circumstances, it would not be advisable for Mather to go with Dr.Hunter to Sweden on behalf of the Scientific Advisory Committee on Sugar Beet research). 25.8.39. 1f.

Mather, K. Letter to B.I.Felton. 28.8.39. 1f.

Whitby, L. Report, from 121, Harley Street, W.1., for K.Mather, on a glucose tolerance test. 7.12.44. 2ff. (original and copy).

University of Oxford. Magdalen College. Judge Randolph Dinner. Menu and table settings. 21.3.64. 2pp.

Mather, K. Two photographs, one showing K.Mather, seated with two other men, near an airfield, another showing a male figure seated at what appears to be wireless apparatus amid downland scenery. A tent has been erected and a car parked nearby. 10 x 7.5 cm. (In an envelope addressed to K.Mather at the Sveriges Utsädesförening, Svalöf.)

File no.104:

Lederberg.

Lederberg, J. Correspondence, from Yale University, Osborn Botanical Laboratory, New Haven, Connecticut, with K.Mather, (concerning linkage, and suggesting that Lederberg submits his results "for the new Journal 'Heredity' which he (Darlington) and Fisher have founded," concerning Lederberg's analysis of the literature on the 'genetic' peculiarities of bacteria, concerning Lederberg's manuscript: "Problems in the Genetics of Microorganisms," concerning the genetic map of E.coli, concerning phages, concerning crossing-over, concerning Lederberg's new post as Asst.Professor in Genetics at the University of Wisconsin, concerning Rees and Jinks' paper in Proc.Roy.Soc. on the mechanism of nuclear adjustment in heterokaryons and E.coli genetics in general). 21.12.46 to 2.5.53. 40ff.

(Included in above file of correspondence:)

File no.104: (contd.)

Mather, K. Tables. n.d. 10ff.

Lederberg, J and Tatum, E.L. Gene recombination in Escherichia coli. Nature, 1946, 158:558.

Lederberg, J., et al. Molecular genetics and informatics. (Abstract). Includes a note by J.Lederberg). n.d. 1p.

File no.105:

Survey Reports (Engledow etc.).

Mather, K. The Maintainance (sic) of Varietal Standards in Seed Production. (Research Project of Dr.K.Mather). 30.5.42. 5ff.

Mather, K. Letter to J.Hammond (on the bearings of genetics on animal breeding). 19.8.43. 2pp.

Hammond, J. Letter, from School of Agriculture, Cambridge, to J.Hammond. 22.7.43. 1f.

Fisher, R.A. (?) Research in Animal Genetics. August 1943. 3pp.

Nichols, J.E. Letter, from Imperial Bureau of Animal Breeding and Genetics, King's Buildings, West Mains Road, Edinburgh 9, to K.Mather, (concerning directions of research in animal genetics in Britain). 25.8.43. 1f.

Nichols, J.E. Letter, from Imperial Bureau of Animal Breeding and Genetics, King's Buildings, West Mains Road, Edinburgh, 9, to K.Mather. 25.8.43. 1f.

Fisher, R.A. Letter, from The Galton Laboratory, Rothamsted Experimental Station, Harpenden, Hertfordshire, to K.Mather. 30.8.43. 1f.

Mather, K. Letter to J.E.Nichols. 30.8.43. 1f.

Nichols, J.E. Letter, from Imperial Bureau of Animal Breeding and Genetics, King's Buildings, West Mains Road, Edinburgh, 9, to J.E.Nichols. 31.8.43. 1f.

Mather, K. Memorandum on Genetical Research in Relation to Animal Breeding. 8.9.43. 10ff.

Mather, K. Letter to J.E.Nichols. 8.9.43. 1f.

Nichols, J.E. Letter, from Imperial Bureau of Animal Breeding and Genetics, King's Buildings, West Mains Road, Edinburgh, 9, to K.Mather. 9.9.43. 1f.

Agricultural Improvement Council/Agricultural Research Council Joint Committee. Survey of plant breeding and genetics: (questionnaire). 1944. 5pp.

Mather, K. Survey of Plant Breeding and Genetics: (Reply to Questionnaire). 1944. 10ff.

Hudson, P.S. Letter, from Imperial Bureau of Plant Breeding and Genetics, School of Agriculture, Cambridge, to K.Mather. 16.5.44. 1f.

File no.106:

- Mather, Mona The effect of temperature and the moon on seedling growth. Holograph manuscript, and notes. 28ff.
- Hood, R.C.W.S. and Niell, W.M. The Alizarin Red S Method for demonstrating bone formation. Duplicated TS, 1f.
- Mather, Mona The effect of temperature and the moon on seedling growth. (J.Roy.Hort.Soc., 1942,67:264-270).
- Royal Horticultural Society, Journal. 1941, vol.66, part 10, and 1942, vol.77, part 8.
- Mather, K. and Newell, J. Seed germination and the moon. (J.Roy.Hort.Soc., 1941, 66:358-366).
- Mather, Mona The effect of temperature and the moon on seedling growth. Holograph manuscript, 3ff.
- Mather, K. Letter to A.D.Hall (concerning moon experiments). 8.1.42. 1f.
- Hall, A.D. Letter to K.Mather (concerning paper on moon experiments). 13.1.42. 1f.
- Fisher, Knight & Co. Postcard to K.Mather. 7.4.42.
- Williams, John M. Letter, from Henblas, Lianbadarn. Fawr, Cards., to C.D.Darlington. 2ff.
- John Innes Horticultural Institution. Letter, from John Innes Horticultural Institution, to M.Mather. (Includes draft). 30.4.42. 2ff.
- Mather, Mona The effect of temperature and the moon on seedling growth. TS manuscript, 10ff.
- University of Oxford. News cutting announcing that the "Weldon Memorial Prize for 1962 has been awarded to K.Mather..." 1 cutting, 1p.
- Mather, Robert Letter to JI Archivist, concerning the papers on the effect of temperature and the moon on growth. 10.8.90. 1f.
- Dyer, F.J. Letter, from the College of the Pharmaceutical Society, Pharmacological Laboratory, 17, Bloomsbury Square, W.C.1, to K.Mather, (on Digitalis, including Interim report on the biological activity of Digitalis leaves). 29.5.42, 2ff.
- Dyer, F.J. Letter, from the Pharmacological Laboratory, 17, Bloomsbury Square, W.C.1, to K.Mather, (including Report on Powdered Digitalis Leaf). 1.12.42, 2ff.
- Dyer, F.J. Report on Powdered Digitalis leaf, sent to K.Mather. 7.12.42. 1f.
- Dyer, F.J. Letter, from Pharmacological Laboratory, 17, Bloomsbury Square, W.C.1, to K.Mather, (including Report on Powdered Digitalis leaf). 30.12.42. 2ff.
- Dyer, F.J. Letter, from Pharmacological Laboratory, 17, Bloomsbury Square, W.C.1, to K.Mather, including: Two Reports on Powdered Digitalis leaf. 23.1.43 and 20.1.43. 3ff.
- Dyer, F.J. Letter, from Pharmacological Laboratory, 17, Bloomsbury Square, W.C.1, to K.Mather (including: Two reports on Powdered Digitalis Leaf). 16.2.43. 3ff.

File no.106: (contd.)

Dyer, F.J. Two reports on Powdered Digitalis Leaf, sent to K.Mather. 19.2.43, 23.2.43. 2ff.

Dyer, F.J. Letter, from Pharmacological Laboratory, 17, Bloomsbury Square, W.C.1, to K.Mather. 22.9.43. 1f.

Zinnell, W.H. Letter, from the College of the Pharmaceutical Society, University College, Cathays Park, Cardiff, to K.Mather (including: Spectrophotometric Examination of Mather's Samples, by R.E.Stuckey). 1942, 1944. 7ff.

Mather, K. Notebook, containing graphs and tables on Digitalis. 1943, 1944. 11pp.

File no.107:

Correspondence concerning Kenneth Mather's Appointment to the Chair at Birmingham, 1948.

Burton, C.G. University of Birmingham, Faculty of Science, Chair of Genetics. The Council of the University invites applications for the Chair of Genetics... Jan.1948. 3pp.

Burton, C.G. Letter, from the University, Birmingham, to P.Medawar. 10.2.48. 1f.

Medawar, P. Letter, from Zoology Department, The University, Birmingham, to K.Mather. 13.2.48. 1f.

Mather, K. Letter to Messrs.Cheshire Gibson and Co., House and Estate Agents. 14.2.48. 1f.

Mather, K. Letter to Messrs.Neale and Aldridge, House and Estate Agents. 17.3.48. 1f.

Stern, F.C. Letter, from Highdown, Goring-by-Sea, Sussex, to K.Mather. 28.5.48. 1f.

Burton, C.G. Letter, from University of Birmingham, to K.Mather, informing him that the Council approved the Senate's recommendation that he be appointed to the Chair of Genetics as from 1st October, 1948. 2.6.48. 1f.

Medawar, P. Letter, from Zoology Department, The University, Birmingham, to K.Mather. 3.6.48. 2pp.

Mather, K. Letter to P.O.Medawar. 4.6.48. 1f.

Mather, K. Letter, from Church House, Church Lane, Merton Park, S.W.19, to C.G.Burton, including Extract from application for Chair of Genetics...University of Birmingham, stating minimum requirements in regard to staff, facilities and organisation. 4.6.48. 4ff.

Burton, C.G. Letter, from the University of Birmingham to K.Mather. 7.6.48. 2pp.

Medawar, P. Letter, from the Zoology Department, University of Birmingham, to K.Mather. 8.6.48. 2pp.

Mather, K. Letter, from Church House, Church Lane, Merton Park, S.W.19, to C.G.Burton, formally accepting the Chair of Genetics at Birmingham. 9.6.48. 2pp.

File No.107: (contd.)

- Burton, C.G. Letter, from the University of Birmingham, to K.Mather. 11.6.48. 1f.
- Mather, K. Letter to P.Medawar. 14.6.48. 2ff.
- Unsigned Letter, from Zoology Department, University of Birmingham, to W.Stiles. 21.6.48. 2pp.
- Unsigned Letter, from Zoology Department, University of Birmingham, to R.H.Hopkins. 21.6.48. 2pp.
- Burton, C.G. Letter, from the University of Birmingham, to K.Mather. 23.6.48. 1f.
- Mather, K. Letter to Edward J.Salisbury, Director, Royal Botanic Gardens, Kew. 25.6.48. 1f.
- Davies, G.R. Letter, from the John Innes Horticultural Institution, Manor House Annexe, Watery Lane, Merton Park, S.W.20, to K.Mather. 25.6.48. 1f.
- Mather, K. Letter to G.R.Davies, John Innes Horticultural Institution, Manor House Annexe. 25.6.48. 1f.
- Davies, G.R. Letter to K.Mather. 30.6.48. 1f.
- Davies, G.R. Letter to The Secretary, ARC, 6a Dean's Yard, S.W.1. 30.6.48. 1f.
- Havelock, E.H.E. Letter, from ARC, 6a Dean's Yard, S.W.1, to K.Mather. 5.7.48. 1f.
- Bland, B.M. Letter, from the Library, University of Birmingham, to K.Mather. 7.7.48. 1f.
- Mather, K. Letter to B.M.Bland, The Library, The University of Birmingham. 19.7.48. 1f.
- Mather, K. Letter, to E.H.E.Havelock, ARC, 6a Dean's Yard, S.W.1. 19.7.48. 1f.
- Mather, K. Letter, from Church House, Church Lane, Merton Park, S.W.19, to four estate agents: Messrs. Chesshire Gibson & Co., Messrs. Leonard Carver & Co., Messrs. Neale & Alldridge and Messrs. Edmonds, Robins & Heaven. 19.7.48. 1f.
- Mather, K. Letter to C.G.Burton. 19.7.48. 1f.

File no.108:

- Mather, K. Thesis submitted for PhD Degree (Int.) by K.Mather in 1933.
- Mather, K. Titles of Printed Papers submitted for degree of DSc by K.Mather. 1933-40. 3ff.
- Mather, K. Abstract. 1. Chromosome behaviour in some monocotyledons (meiosis in Lilium species). 2ff.
- Mather, K. 1). Chromosome behaviour in some monocotyledons: meiosis in Lilium species, and 2). The inheritance of flaking in Antirrhinum majus. (ms. with photographs), 1933. 57ff., 35ff.
- Mather, K. Chromosome variation in Crocus. I. (J.Genetics, 1932, 26:129-142).
- Mather, K. The relation between chiasmata and crossing-over in diploid and triploid Drosophila melanogaster. (J.Genetics, 1933, 27:243-259).



File no. 109:

Lecture Notes.

Drummond, Prof. Botany - Seminar 1931 Lent, Genetics: Variation & Heredity. (Notes by K.Mather). 1931. Holograph, 38pp. (Includes: Example of "Normal" Distribution of Continuous Variates, Example of continuous Variation, Example to illustrate Galtonian Regression, Johannsen (1903); Inheritance in Kidney Bean, Tables on Antirrhinum pigmentation (holograph), 12pp.

File no.110:

Ceremonies, Degree Days, etc.

The Victoria University of Manchester. Degree Day...July 3rd, 1931. University of Manchester, 1931, 16pp. (On page 7 Kenneth Mather is listed as having a first class degree in Botany).

University of Birmingham. Proceedings at a Congregation of the University of Birmingham, July 2nd, 1949. (On p.2: For the Degree of Master of Science (ex officio): Kenneth Mather). 35pp.

The Royal Society. Conversazione, Burlington House, May 17th, 1933. 27pp.

File no.111:

Dr.Kenneth Mather, University of Southampton.

Mather, K. Lecture notes (?): on Genetics: teaching, research, history. n.d. holograph, 4ff.

Mather, K. Tables: Diallels - Competition - Hayman AoV Of phi. n.d. holograph, 7ff.

Mather, K. Tables: Maternal Effect in Diallels. n.d. holograph, 2ff.

Mather, K. Tables: Diallel Rep 1. n.d. holograph, 4ff.

Mather, K. Tables: (SW)F2 v 6 C/L Overall F3 90's, (SW)F2 v. 6 C/L Yield of 4 cultures. n.d. holograph, 3ff.

Tables: (S x W)F2 Phenotypic Competition, (OS) Chromosome Substitution Lines. n.d. holographs, 14ff.

File no.112:

Royal.

Royal Society. Notes on the preparation of papers communicated to the Royal Society. May 1939. 9pp.

Brooks, F.T. Letter, from Botany School, Downing Street, Cambridge, to C.D.Darlington. 19.7(?)47. holograph, 1f.

Darlington, C.D. Note on the work of K.Mather. n.d. holograph and typed version, 3ff.

Thornton, H.G. Letter, from Rothamsted Experimental Station, Harpenden, Herts., to C.D.Darlington, saying he is now pleased to support Mather's candidature (to the Royal Society). 1.8.47. holograph, 1f.

Ford, E.B. Letter, from Dept. of Zoology & Comparative Anatomy, University Museum, Oxford, to C.D.Darlington, saying he is very pleased to sign Mather's certificate. 17.9.47. holograph, 1f.

Shipton, I.M.G. Letter, from the John Innes Horticultural Institution, to the Assistant Secretary of the Royal Society, stating that she has sent him 2 books and 60 reprints of papers by K.Mather, in connection with the Certificate of Election. (Includes a list: Kenneth Mather: Publications 1932-1947). 17.10.47. 6ff.

Martin, D.C. Letter, from the Royal Society, Burlington House, W.1, to Miss I.M.G.Shipton. 21.10.47. 1f.

Geo(?) Letter, from The Chester Beatty Research Institute, Fulham Road, S.W.3, to K.Mather. 11.5.48. holograph, 1f.

Medawar, P.B. Letter, from Zoology Dept., The University, Edgbaston, Birmingham, to K.Mather. 12.5.48. 1f.

Yates, F. Letter, from Rothamsted Experimental Station, Harpenden, Herts., to K.Mather. 13.5.48. holograph, 2pp.

Sansome, F.W. Letter, from University of Manchester, to K.Mather. n.d. holograph, 1f.

Egerton, A.C. and Salisbury, E.J. Circular letter from the Royal Society to Fellows concerning reduction of delays in publication of papers submitted to the Royal Society. October 1948. 1f.

Beard, W.W.(?) Letter, from Allen & Unwin, 40 Museum Street, W.C.1, to C.D.Darlington, concerning "Genes, Plants and People" and "The Elements of Genetics." 7.3.49. 1f.

Fisher, R.A. Letter, from Whittingehame Lodge, 44 Storey's Way, Cambridge, to K.Mather, congratulating him on his election to the Royal Society. 10.3.49. 1f.

Punnett, R.C. Postcard congratulating K.Mather on his election to the Royal Society. 10.3.49. 1f.

Darlington, C.D. Letter, from John Innes Horticultural Institution, Merton, to K.Mather, congratulating him on his election to the Royal Society. 11.3.49. 1f.

Brooks, F.T. Letter from University of Cambridge, Botany School, Cambridge, to K.Mather, congratulating him on his election to the Royal Society. 11.3.49. holograph, 1f.

Ford, E.B. Letter, from Overleigh House, Street, Somerset, to K.Mather, congratulating him on his election to the Royal Society. 11.3.49. holograph, 1f.

Mather, K. Letter, from Genetics Dept., The University, Birmingham, to C.D.Darlington. 12.3.49. holograph, 2pp.

Maskell, E.J. Letter, from 11 Barnswold(?) Rd., Cambridge, to K.Mather, congratulating him on his election to the Royal Society. 12.3.49. holograph, 1f.

Yates, F. Letter, from Stackyard, Rothamsted, Harpenden, Herts., to K.Mather, congratulating him on his election to the Royal Society. n.d. holograph, 1f.

File no.112: (contd.)

Huxley, J.S. Letter, from 31 Pard St., London NW3, to K.Mather, congratulating him on his election to the Royal Society. 14.3.49. holograph, 1f.

Brulerine, S. Letter, from 6 Carpenter Road, Edgbaston, Birmingham, to K.Mather, congratulating him on his election to the Royal Society and including a typescript for his comments. 16.3.49. holograph, 1f.

Maurice ? Letter, from 59 Dorset Road, Merton, to K.Mather. 16.3.49. holograph, 1f.

Salisbury, E.J. Letter, from Royal Botanic Gardens, Kew, Surrey, to K.Mather, congratulating him on his election to the Royal Society. 17.3.49. 1f.

Shipton, I.M.G. Letter, from John Innes Horticultural Institution, Merton, to K.Mather, congratulating him on his election to the Royal Society. 17.3.49. holograph, 1f.

Salisbury, E.J. and Brent, D. Letter, from The Royal Society, Burlington House, London, to K.Mather, informing him of his election to the Royal Society. 18.3.49. 1f.

Davies, G.R. Letter, from the John Innes Horticultural Institution, Secretary's Office, Manor House Annexe, Merton, to K.Mather, congratulating him on his election to the Royal Society. 18.3.49. 1f.

Finney, D.J. Letter, from University of Oxford, Lectureship in the Design and Analysis of Scientific Experiment, 91 Banbury Road, Oxford, to K.Mather, congratulating him on his election to the Royal Society. 18.3.49. holograph, 1f.

Race, R. Letter, from the Lister Institute, Chelsea Bridge Road, SW1, to K.Mather, congratulating him on his election to the Royal Society. 18.3.49. holograph, 1f.

Hopkins, R.H. Letter, from the University, Edgbaston, Birmingham 15, to K.Mather, congratulating him on his election to the Royal Society. 18.3.49. 1f.

Stern, F.C. Letter, from Highdown, Goring-by-Sea, Sussex, to K.Mather, congratulating him on his election to the Royal Society. 18.3.49. holograph, 2pp.

Hannan, N.U.V.(?) Letter, from the Chester Beatty Research Institute, The Royal Cancer Hospital, Fulham Road, London SW3, to K.Mather. 18.3.49. holograph, 1p.

Hardy, A.C. Letter, from Department of Zoology & Comparative Anatomy, University Museum, Oxford, to K.Mather, congratulating him on his election to the Royal Society. 18.3.47. holograph, 1f.

Wardger, J.H.(?) Letter, from the Middlesex Hospital Medical School, London W1, to K.Mather. 18.3.49. 1f.

Gruneberg, H. Letter, from University College London, Gower Street, WC1, to K.Mather, congratulating him on his election to the Royal Society. 18.3.49. 1f.

File no.112: (contd.)

Slorer, R.(? ) Letter, from Laboratory Animals Bureau, Royal Veterinary College, Royal College St., London NW1, to K.Mather, congratulating him on his election to the Royal Society. 18.3.49. holograph, 1f.

Merton, T.R. Letter, from The Royal Society, Burlington House, London W1, to K.Mather (concerning admission fee to the Royal Society). 18.3.49. 1f.

Carter, T.C. Letter, from 28, Newbattle Terrace, Edinburgh, 10, to K.Mather. 18.3.49. holograph, 1f.

Bacharach, A.L. Letter, from Glaxo Laboratories, Greenford, Middlesex, to K.Mather, congratulating him on his election to the Royal Society. 18.3.49. 1f.

?, Hugh Postcard, from Animal Breeding and Genetics Research Organisation, Glenbourne, South Oswald Road, Edinburgh 9, to K.Mather, congratulating him on his election to the Royal Society: "Well done, lad!" 18.3.49. holograph, 1f.

Harris, T.M. Letter, from the University of Reading, to K.Mather. 18.3.49. holograph, 1f.

Koller, P. Telegram, from West London, to K.Mather, congratulating him on his election to the Royal Society. 18.3.49. 1f.

Aitchison, L. Letter, from The University, Edgbaston, Birmingham 15, to K.Mather, congratulating him on his election to the Royal Society. 18.3.49. 1f.

Scorgil, N.J. Letter, from Greenland Nursing Home, Royal Berkshire Hospital, Reading, to K.Mather, congratulating him on his election to the Royal Society. 18.3.49. holograph, 1f.

Dick, W. Letter, from "Discovery", 244 High Holborn, London WC1, to K.Mather, congratulating him on his election to the Royal Society. 19.3.49. holograph, 1f.

Bishop, G.R.H. Letter, from 22 Meadowhouse Road, Corstorphine, Edinburgh 12, to K.Mather, congratulating him on his election to the Royal Society. 19.3.49. holograph, 1f.

"Uncle" Tom Letter, from 24, Barony Road, Nantwich, Cheshire, to K.Mather, congratulating him on his election to the Royal Society. 19.3.49. holograph, 1f.

Crane, M.B. Letter, from the John Innes Horticultural Institution, Mostyn Road, Merton Park, SW19, to K.Mather, congratulating him on his election to the Royal Society. (Morley Crane also mentions that he has been offered another job, "but I don't feel that I am really attracted.") 19.3.49. holograph, 1f.

Frazer, A.C. Letter, from Dept. of Pharmacology, The Medical School, Hospitals Centre, Birmingham 15, to A.C.Frazer. 19.3.49. holograph, 1f.

Lodge, John Letter, from The Grammar School, Nantwich, Cheshire, to K.Mather, congratulating him on his election to the Royal Society and requesting Mather's publications for the School Library. 19.3.49. 2pp.



Roberts, John Fraser Letter, from London School of Hygiene and Tropical Medicine, Keppel Street, W.C.1, to K.Mather, and mentioning that he awaits Mather's book with great interest, he is "sure that the book will do a great deal to popularise those awful biometrical methods..." 20.3.49, holograph, 2pp.

Brimble, L.J.F. Letter from "Nature", Macmillan & Co., St.Martin's St., WC2, to K.Mather, congratulating him on his election to the Royal Society. 25.3.49. 1f.

Ashby, Eric Letter, from Botanical Dept., The University, Manchester 13, 20.3.49. holograph, 1f.

Burnett, J.H. Postcard, from Magdalen College, Oxford, to K.Mather, congratulating him on his election to the Royal Society. 20.3.49. 1f.

Lowe, D.N. Compliments slip, from the British Association for the Advancement of Science, Burlington House, London W1, congratulating him on his election to the Royal Society. 31.3.49. holograph, 1f.  
31.3.49. holograph, 1f.

Clow, Archibald Letter from B.B.C., Broadcasting House, W1, to K.Mather, congratulating him on his election to the Royal Society. 21.3.49. 1f.

Gordon, Cecil Letter, from Institute of Animal Genetics, King's Buildings, West Mains Road, Edinburgh 9, congratulating him on his election to the Royal Society. 21.3.49. 1f.

Gowdridge(?), Barbara M. Letter, from University College of North Wales, Department of Botany, Memorial Buildings, Bangor, to K.Mather. 22.3.49. holograph, 1f.

Lewis, D. Letter, from the John Innes Horticultural Institution, Merton Park, SW19, to K.Mather, congratulating him on his election to the Royal Society. 22.3.49. holograph, 1f.

Bartlett, M.S. Letter, from Dept. of Mathematics, The University, Manchester 13, to K.Mather. 23.3.49. 1f.

Russell, J. and Sons. Letter, from 63, Baker St., W1, to K.Mather, concerning a portrait sitting. 24.3.49. 1f.

Irwin, J.O.(?) Letter, from the Statistical Research Unit, London School of Hygiene and Tropical Medicine, Keppel St., WC1, to K.Mather, congratulating him on his election to the Royal Society. 28.3.49. Holograph, 1f.

Mather, (Father of K.Mather). Letter, from 6, Mill St., Nantwich, to K.Mather, congratulating him on his election to the Royal Society, and telling family news. 20.3.49. holograph, 4pp.

Auerbach, C. Letter, from Institute of Animal Genetics, King's Buildings, West Mains Road, Edinburgh 9, to K.Mather, congratulating him on his election to the Royal Society. 30.3.49. 1f.

Edwardes, Joy Letter, from 32, Castelnau, Barnes. SW13, to K.Mather, congratulating him on his election to the Royal Society. 30.3.49. holograph, 1f.



Sirks, M.J. Postcard, from Genetisch Instituut der Rijksuniversiteit, Huis de Wolf, Haren, to K.Mather, congratulating him on his election to the Royal Society.

Mather, K. Letter to I.C.Martin, Assistant Secretary, The Royal Society, concerning matters relating to K.Mather's election to the Royal Society. 21.3.49. 1f.

G., J. and U., E.F. (?) Letter, from Weaver House, South Beechgrove Terrace, West Ryton-on-Tyne, Co.Durham, to K.Mather, congratulating him on his election to the Royal Society. 23.3.49. holograph, 2pp.

Martin, D.C. Letter, from The Royal Society, Burlington House, W1, to K.Mather, concerning his admission to the Royal Society, and including two receipts: £10 for admission and £5 for his annual contribution to the Royal Society. 24.3.49. 3ff.

Philp, J. Letter, from Ministry of Agriculture and Fisheries, 1-4 Cambridge Terrace, Regent's Park, NW1, to K.Mather, congratulating him on his election to the Royal Society, and telling him that "there is a chance of finding a home for the NVRS about 20 miles south of B'ham..." 26.3.49. holograph, 2pp.

Fieller, S.C. Letter, from Chesford Lodge, 52, Somerset Rd., Teddington, Mdx., to K.Mather, congratulating him on his election to the Royal Society, and also proposing Irwin as a member of the Biometrical Society Committee, etc. 27.3.49. holograph, 2pp.

Lodge, J. Letter, from The Grammar School, Nantwich, Cheshire, to K.Mather, thanking him for presenting his publications to the school. 27.3.49. holograph, 1f.

Holt, Sadie Letter, from the Galton Laboratory, University College, Gower St., WC1, to K.Mather, congratulating him on his election to the Royal Society. 28.3.49. holograph, 1f.

Edwin, B.C.(?) Letter, from the Milk Marketing Board, Thames Ditton, Surrey, to K.Mather, congratulating him on his election to the Royal Society. 28.3.49. 1f.

Mowbray Letter, from Weaver House, South Beechgrove Terrace, West Ryton-on-Tyne, Co.Durham, to K.Mather, congratulating him on his election to the Royal Society. 29.3.49. holograph, 2pp.

Barbara Letter, from Canadian Red Cross Memorial Hospital, Taplow, Maidenhead, Berks, to K.Mather, congratulating him on his election to the Royal Society. n.d. (probably 1949). holograph, 3pp.

Janaki-Ammal, E.K. Letter, from R.H.S.Gardens, Wisley, Ripley, to K.Mather, congratulating him on his election to the Royal Society. 19.4.49, holograph, 1f.

Howarth, W.O. Letter, from University of Manchester, Manchester 13, to K.Mather, congratulating him on his election to the Royal Society. 2.5.49. holograph, 1f.

Schafer, Brenhilda Letter, from BX Plastics Limited, Brantham Works, Nr.Manningtree, Essex, to K.Mather, congratulating him on his election to the Royal Society. 3.5.49. 1f.

File no.112: (contd.)

Evans, D.Tudor Letter, from Nantwich Urban District Council, Council Offices, Brookfield House, Nantwich, to K.Mather, congratulating him on his election to the Royal Society. 6.5.49. 1f.

Goldschmidt, R. Letter, from Dept.of Zoology, University of California, Berkeley 4, to K.Mather concerning some reprints, and also congratulating him on his election to the Royal Society. 21.5.49. holograph, 1f.

Mather, K. Letter, from Genetics Dept. (University of Birmingham) to D.Tudor Evans, thanking Nantwich Urban District Council for congratulating him on his election to the Royal Society. 18.5.49. 1f.

Mather, K. Letter to D.C.Martin, Assistant Secretary of the Royal Society, concerning his contributions. 22.6.49. 1f.

Martin, D.C. Letter, From The Royal Society, Burlington House, W1, to K.Mather, concerning his contributions. 1.4.49. 1f.

Mather, K. Letter to R.Goldschmidt, concerning some reprints of Goldschmidt's which Mather had not received. 29.8.49. 1f.

Royal Society, Assistant Secretary. Letter to K.Mather, thanking him for his gift of "Biometrical Genetics". 11.1.50. 1f.

Martin, D.C. Letter, from the Royal Society, Burlington House, W1, to K.Mather, thanking Mather for donating his book:"Biometrical Genetics". 11.1.50, 1f.

Royal Society, Assistant Secretary. Two letters to K.Mather thanking him for the donation of his book: "The Elements of Genetics." 16.1.50. 2ff.

File no.113:

Rockefeller & General.

Mather, K. Correspondence concerning his work in USA as a Rockefeller Fellow in Genetics, where he was to study the Mechanism of Crossing-over with T.H.Morgan at California Institute of Technology, Pasadena. Dr.Mather started work at Pasadena on 1.10.37.

Mather, K. Correspondence with: American Consul General, 2, Harley St., W1; G.W.Bakeman, Rockefeller Foundation, Paris; M.C.Bielitz, Rockefeller Foundation, New York; C.A.Converse, American Consulate General, London; A.B.Dawson, Biological Laboratories, Harvard University, Cambridge, Mass.; Th.Dobzhansky, California Institute of Technology, Pasadena; F.B.Hanson, Rockefeller Foundation, New York; F.Lyle, Rockefeller Foundation, New York; H.M.Miller, Rockefeller Foundation, New York; T.H.Morgan, California Institute of Technology, Pasadena; Royal Mail Lines Ltd., Leadenhall St., EC3; Karl Sax, Biological Laboratories, Harvard University; A.W.Spence, 107, Harley St., W1; J.H.Wagner, U.S.Dept. of Labor, Washington.

Miller, H.M. Letter, from Rockefeller Foundation, New York, to R.A.Fisher. 17.2.37. 2ff.

Bakeman, G.W. Letter, from Rockefeller Foundation, Paris, to American Consul General, England. 24.6.37. 2ff.

Hall, A.D. Letter, from the John Innes Horticultural Institution, Merton, Surrey, to the U.S.Consul General in Britain. 23.7.37.

File no.113: (contd.)

Mather, K. Proposed schedule of work: The mechanism of crossing-over; The use of statistical methods in some taxonomic problems. 1937. 2ff.  
Dorne, C.O.G.(?) Letter, from the University of London, University College, WC1, to K.Mather, informing him of his promotion from Assistant Lecturer (Eugenics) Grade III to Grade IIA, (lecturer) and that he is to be re-appointed at the end of 1935-40. 11.6.37. 1f.

File no.114:

Miscellaneous Reports, Talks, etc.

Mather, K. R.A.Fisher: the life of a scientist. (corrected proof). n.d. TS, 3ff.  
Henderson, W.M. The contribution of the Agricultural Research Service to agricultural advancement. (Farmers' Club Meeting on "Research and Development" 13th November 1974). 9ff.  
Race, R.R. Blood groups in human genetics. (2nd RAF Memorial Lecture Wed.March 6th, 1968). photocopy, 55ff.  
Mather, K. Determinants, processes and natural selection. (Botanical Congress, Edinburgh, 1964). TS 12ff.  
Mather, K. Genetics and plant breeding. (SPBS 12.4.73). holograph, 5ff.  
Mather, K. (?) Table, showing 12 areas of genetic research, e.g.:man, mammals, other vertebrates, insects, Drosophila, etc., each area being divided into subgroups, sometimes showing where research is being carried out on each subgroup. n.d. mounted TS, 2pp.  
Mather, K. Report on visits to genetical and plant breeding centres in the United States and Canada. A.R.C. 9055, 4.2.47. duplicated TS, 10pp.  
Mather, K.(?) Table, showing letters of Greek alphabet and English equivalents. n.d. holograph, 1f.  
Greenwood, M. Review of: Mather, K. "Statistical analysis in biology." (Bulletin of Hygiene, April 1943, pp.347-8.  
Alexander, B.H. Letter, from BBC, Broadcasting House, W1, to K.Mather, inviting him to write a talk on "Character and ability" for the Persian service. 8.7.49. 2ff.  
Mather, K. Letter to B.H.Alexander, agreeing to write a talk on "Character and ability" as requested by the BBC. 19.7.49. 1f.  
Mather, K. The relative effects of heredity and environment on character and ability. n.d. TS, 4ff.  
Darlington, C.D. Planning agricultural research. 8.2.50. TS, 18ff.  
Fisher, R.A. Letter, from the Galton Laboratory, Rothamsted Experimental Station, Harpenden, Herts., to K.Mather, discussing a day for "counting shorts" of Lythrum at Merton and Downe, and also discussing Haldane's review and his general character. 21.6.43. TS 2pp.  
Mather, K. Two black and white portrait photographs, one three-quarters bust, facing camera, the other: seated at microscope. 2 photos, 1: 7.5 x 10cm., 2: 5 x 8.5cm. (In envelope, with postmark: London, 30.11.41).  
Mather, K. Parallel variation. n.d. TS, 2ff.

File no.115:

Miscellaneous Noli and Papers mainly about organisation.

Mather, K. Variability and selection. n.d. (post 1965), TS, 23ff.

Mather, K. What is inheritance? The problem in plant breeding. Thursday, 4th May, 1939: 7.40-8.00 p.m. National. TS, 14ff.

Mather, K. Paper, with no title, beginning: "The term 'individual' is in constant use in biological discussion." 2 copies, also 2 handwritten notes.

Mather, K. The evolution of human relationships. n.d., TS, 12ff.

Mather, K. Biological and social organisation. 21.10.55. TS, 3ff.

Darwin, C.R. Three quotations from Charles Darwin: 1) to A.R.Wallace, 22.12.1857, in: Darwin, C.R. "Life & Letters" vol.2, 1888, p.108; 2) to J.Scott, 1863; 3) to Garner. (Nos. 2 and 3 were noted by Doncaster). holograph, 2ff.

Novikoff, A.B. The concept of integrative levels and biology. (Science, March 2, 1945, pp.209-215).

Mather, K. The evolution of human relationships. (Literary Guide, 1954, vol.69, no.10). Typed MS. and holograph notes, 19ff.

Mather, K. Lecture given at the Chick Breeders Conference, Llandudno 1958 (?). holograph, 9pp.

File no.116:

BG(3) Drafts.

Mather, K. "Biometrical Genetics" (?): Preface to the third edition; Figures; Corrections; Tables. n.d. holograph, 38ff.

Mather, K. Non-allelic interaction in continuous variation of randomly breeding populations. (Heredity, 1974, 32:414-419).

File no.117:

Mather, K. Illustrations of chromosomes: Lilium regale, L.candidus, (others not named). n.d. ( 49 pieces, black ink on card).

File no.118:

Mather, K., et al. Correspondence concerning papers and proofs.

Mather, K. Polygenic balance in the canalization of development. (Nature, Lond., 1943, 151:68).

Smith, J.M. Disruptive selection, polymorphism and sympatric speciation. (Nature, Lond., 1962, 195:60-62).

Jinks, J.L. Letter, from Dept.of Genetics, University of Birmingham, to K.Mather, enclosing a copy of linkage tables. 17.11.65. TS, 7ff.

Smith, J.M. Sympatric speciation. (Amer.Nat., 1966, 100:637-650).

Smith, J.M. Letter, from the University of Sussex, Biology Building, Falmer, Brighton, to K.Mather, enclosing two reprints on "Polymorphism in a varied environment." 16.2.70. 1f.

Mather, K. Letter, to J.M.Smith. 25.2.70. 1f.

Jinks, J.L. Letter, from the Dept. of Genetics, University of Birmingham, to K.Mather. 23.7.71.

Mather, K. Letter to J.L.Jinks. 26.7.71. 1f.



File no.118: (contd.)

McGill, Anne and Mather, K. Competition in Drosophila I: a case of stabilising selection. n.d. (post 1970). TS, 10ff.

File no.119:

Mather, K. Correspondence concerning books.

Mather, K. and Chapman & Hall Memorandum of Agreement...16.12.72 between Professor Kenneth Mather...the Author...and Chapman and Hall Ltd concerning his book: "Genetical Structure of Populations". Signed: Brian D.West, Director of Chapman & Hall. 5pp.

Mather, K. and Ingram, D.C. Correspondence of K.Mather with D.C.Ingram, editor, and Ava Ray of Chapman & Hall, concerning Mather's book: "Genetical Structure of Populations" and "Biometrical Genetics", and seeking advice on the manuscript of "Mutation" by C.Auerbach; also author's questionnaire filled in by K.Mather; also correspondence with the Royal Society, Oliver & Boyd, J.M.Thoday, M.Berrill, J.L.Jinks, Anne McGill, Roy Watling, E.Naylor, A.P.M.Lockwood requesting permission to reproduce figures for Mather's new book: "Genetical Structure of Populations."

29.12.72-6.7.73. TS and holograph, 44ff.

MacDonald, W. Letter, from Oliver and Boyd, Tweeddale Court, 14 High St., Edinburgh, to K.Mather, concerning VAT. 28.3.73. TS, 2pp.

Abbott, K.A.M. Letter, from George Allen & Unwin, Park Lane, Hemel Hempstead, HP2 4TE, to K.Mather, concerning VAT. n.d. (1973), TS, 1f.

File no.120:

Books - since September 1971.

Berrill, M. Letter, from Oliver & Boyd, Tweeddale Court, Edinburgh, to K.Mather, concerning "Human diversity." 20.9.71. TS, 1f.

Mather, K. and Ingram, D.C. Correspondence between K.Mather and D.C.Ingram of Chapman & Hall, 11 New Fetter Lane, London EC4P 4EE, concerning "Statistical analysis in biology." 15.10.71-23.10.71. TS, 3ff.

Mather, K. and Thoday, J.M. Correspondence between K.Mather and J.M.Thoday of University of Cambridge, Dept. of Genetics, Milton Road, CB4 1XH, who requests permission to reproduce figures from "Human diversity" and "S.E.B. Evolution Symposium." 9.3.72-27.3.72. TS, 4ff.

Mather, K. and Berrill, M. Correspondence between K.Mather and M.Berrill, of Oliver and Boyd, Tweeddale Court, Edinburgh, concerning royalties for "Human diversity." March 1972-4.4.72. TS. 2ff.

Mather, K. and Ingram, D.C. Correspondence between K.Mather and D.C.Ingram, of Chapman & Hall Ltd., 11 New Fetter Lane, EC4P 4EE, concerning "Genetical structure of populations" and "Biometrical genetics." 6.4.72-24.4.72. TS 3ff.

Mather, K. and Berrill, M. Correspondence between K.Mather and M.Berrill, of Oliver and Boyd, Tweeddale Court, Edinburgh, concerning Murray's "Genetic diversity and natural selection", ecological genetics and "Human diversity". 18.4.72-8.5.72. TS, 3ff.



File no.120: (contd.)

Mather, K. and Ingram, D.C. Correspondence between K.Mather and D.C.Ingram, of Chapman & Hall, 11 New Fetter Lane, EC4P 4EE, concerning "Elements of biometry", "Statistical analysis in biology" and "Genetical structure of populations". 23.5.72-16.12.72. TS, 7ff.

Mather, K. and Cardy, B.M. Correspondence between K.Mather and B.M.Cardy, of Associated Book Publishers Ltd., North Way, Andover, Hampshire, concerning Value Added Tax. 1.1.73, 12.3.73. TS, 2ff.

File no.121:

Elements of Biometry, Human Diversity.

Mather, K., Draper, G.J., Clay, P., Berrill, M., Wait, P., Editore Boringhieri, Oliver, E.M., Swainson, M., West, B.D., Herrmann, F., Llewelyn, F.W.M. Correspondence between K.Mather and G.J.Draper, of the Dept. of Social Medicine, Oxford University, 8 Keble Rd.; P.Clay, of Associated Book Publishers Ltd., North Way, Andover, Hants.; M.Berrill, of Oliver & Boyd, Tweeddale Court, Edinburgh; P.Wait, of Methuen & Co., 11 New Fetter Lane, EC4; Editore Boringhieri, Torino Casella Postale 225; E.M.Oliver, Methuen & Co., 11, New Fetter Lane, EC4; M.Swainson, Methuen & Co.; B.D.West, Methuen & Co.; F.Herrmann, Methuen & Co.; and F.W.M.Llewelyn, East Malling Research Station, Maidstone, Kent. 16.9.65-3.10.72. TS, 47ff.

File no.122:

Mather, K. and Jinks, J.L. Biometrical Genetics: the Study of Continuous Variation. 3rd ed.

Proofs of Chapters: 1,2,3,4,5,6,7,8,9,10,11,12. (Two copies).(Also, illustrations and figures, captions, etc.).

Mather, K. Correspondence with M.A.Ommanney of Chapman & Hall concerning "Biometrical Genetics: the Study of Continuous Variation" 3rd ed. 4.8.81-23.9.81. 15ff. TS & HW.

File no.123:

Mather, K.. "Biometrical Genetics and Other Books."

Mather, K. Agreement with Methuen & Co. concerning "The Measurement of Linkage in Heredity", and correspondence. 5.1.37-7.1.37. 5pp.

Mather, K. Agreement with Methuen & Co. concerning "Statistics for Biologists". 1.1.42. 3pp.

Mather, K. Reviews of "Statistical Analysis in Biology," in: Sveriges Utsädesförenings Tidskrift 1943, no.6; J.R.Statistical Soc., 1943, part 1; Nature 12.6.43; The Lancet 1.5.43; Mendel & Pasteur Rev., 19.11.43; Medical Officer 22.5.43; Rev.Brasileira de Biologia June 1943; Bull.Hygiene, April 1943; Animal Breeding Abstracts, 1943, vol.11; Eugenics Rev., 1943; Endeavour, July 1943; Plant Breeding Abstracts 1943,13:272; Vet.Bull.,13:346; Ecology, 1944, 25:378; Entomologist's Monthly Mag. Oct.1943.

File no.123: (contd.)

Mather, K. Correspondence concerning publications and the new Biometrics Society with: U.Philp, S.Unwin, P.Wait, R.A.Fisher, J.Sharp, 1.1.45 to 19.4.48.

Mather, K. and Darlington, C.D. Agreement with George Allen & Unwin Ltd. concerning "The Elements of Genetics". 25.6.46. 4pp.

Mather, K. Agreement with Methuen & Co. concerning "Biometrical Genetics". 9.9.46. 4pp.

File no.124:

Mather, K. Broadcasts, 1943-1959.

Typescripts of 22 broadcasts: New Plants from Old; Human Blood Groups; Father to Son: the Science of Heredity; Hazards of Atomic Energy; The Ultimate Responsibility; The Ultimate Responsibility no.3; Biological Engineering; Prey and Predator; Science Review discussion with W.Haslett and C.H.Hassall; Darwinism Up-to-date; The Seeds in the Seed-Packet; The Materials of Heredity; Genetics and Evolution; The Hazards to Man of Nuclear and Allied Radiations; Biological Organization; Mutual Aid or Living Together; Cytoplasm in Heredity and Development; Report of Dr.Alan Durrant's Demonstrations at the Royal Society; What makes us What we Are; Hybrid Sterility Mutation; The Measurement of Uncertainty: Thinking in Numbers; What is Race? - Inbreeding and Outbreeding.

File no.125:

Miscellaneous Reprints.

Berry, R.J. The biology of non-metrical variation in mice and men. (The Skeletal Biology of Earlier Human Populations: Symposia of the Society for the Study of Human Biology, vol.8 (1968), p.103-133.)

Berry, R.J. Non-metrical skull variation in two Scottish colonies of the Grey Seal. (J.Zool.,Lond.,(1969), 157:11-18).

Berry, R.J. and Crothers, J.H. Stabilizing selection in the dog-whelk (Nucella lapillus). (J.Zool.,Lond.,(1968),155:1-17).

Berry, R.J., Jakobson, M.E. and Moore, R.E. Metabolic measurements on an island population of the house mouse during the period of winter mortality. (Proc.Physiol.Soc., 10-11.1.69, J.Physiol.,210:101-102P).

Dawood, M.M. and Strickberger, M.W.

The effect of larval interaction on viability in Drosophila melanogaster. II. Changes in age structure. (Genetics, 1969, 63:201-211).

Grüneberg, H. Genetical research in an area of high natural radioactivity in South India. (Nature, Lond., 1964, 204:222-224).

Welcome to Gibraltar. Leaflet, with map. August 1969. 4pp.

File no.126:

M.B.Crane.

Mather, K. Correspondence with Lewis, D.; Thomas, P.T.; Lawrence, W.J.C.; Keay, R.W.J. (Executive Secretary of the Royal Society); Royal Horticultural Society, Secretary; Fiddian-Green, J.H. (Linnean Society, Secretary); Stiff, J.; Welburn, R.A.; Brown, A.G.; Angus, A.; Elliott, B.; Woolhouse, H.W.; Harrison, B.J.; Harvey, R.D.; Oliver, L.; concerning Mather's obituary of M.B.Crane. 1983-1985. Including:

Mather, K. Morley Benjamin Crane 1890-1983, elected FRS 1947. (Biogr.Mems.Fellows Roy.Soc.,1985, 31:88-110). Also, proofs of this obituary.

File no.127:

Jinks, J.L. Biographical Memoir.

Jinks, J.L. Chapter 1: Biometrical genetics of heterosis. pp.1-46.

Pooni, H.S. and Jinks, J.L. Biometrical approach to crop improvement. n.d. c.1986.TS, 32ff.

Mather, K. Materials for Biographical Memoir (1 envelope):

Mather, K. Correspondence with: Hamlin, M.J.; Selborne, Lord; Bleasdale, J.K.A.; Martin, N.G.; Eaves, L.J.; Broadhurst, P.L., 1987.

Including curriculum vitae, bibliography, discussions of the work of Jinks, J.L.

Jinks, J.L. Obituaries July 1987 and memorial service (1 envelope):

Jinks, J.L. St.Marylebone Church London NW1. A thanksgiving service for the life and work of Professor John L.Jinks...1929-1987, 12.10.87. 12pp.

Correspondence between: Hamlin, M.J.; Killick, A.; Mather, K.; Jamieson, B.G., 7.6.87-16.9.87.

Jinks, J.L. Obituaries.

Jinks, J.L. Including Final Draft of Biographical Memoir, (1 envelope):

Mather, K. Correspondence with: Goatly, M.B.;Warren, P.T.; Oliver, C. 1987-88.

Mather, K. John Leonard Jinks, 21 October 1929 - 6 June 1987, elected FRS 1970: obituary. 1987. TS 53ff.

Harper, P. Letter, from National Cataloguing Unit for the Archives of Contemporary Scientists, University of Bath, Claverton Down, Bath BA2 7AY, to K.Mather, concerning the papers of Jinks, J.L. 25.5.88. TS, 1f.

Mather, K. Correspondence with: Harper, P.; Oliver, C.; Bleasdale, J.K.A.; Hamlin, M.; Selborne, Lord. 12.1.87-23.1.89.

Mather, K. John Leonard Jinks, 21 October 1929-6 June 1987. (Proof). 28.6.88. TS, 40ff.

"J.L.J. Biographical Memoir, R.S. Drafts."

Mather, K. John Leonard Jinks, 21 October 1929-6 June 1987; elected FRS 1970. n.d. holograph, 35ff.

Mather, K. John Leonard Jinks, 21 October 1929 - 6 June 1987; elected FRS 1970. n.d. TS, 40ff.

File no.127: (contd.)

Mather, K. John Leonard Jinks, 21 October 1929 - 6 June 1987; elected FRS 1970. n.d. holograph, 37ff.

Mather, K. John Leonard Jinks, 21 October 1929 - 6 June 1987; elected FRS 1970. n.d. TS, 41ff.

Callow, J. Letter, from School of Biological Sciences, University of Birmingham, to K.Mather, thanking Mather for sending him his biography of John Jinks. 16.1.89. TS, 1f.

File no:128:

Photographs.

Mather, K. Three photographs of K.Mather: 1) working on plants in the glasshouse; 2) in the laboratory; 3) standing by front door of private house. 1) 7 x 11cm., black & white; 2) 5 x 8.5cm., black & white; 3) 6.5 x 10.5cm., sepia. n.d., c.1930's.

Harland, S.C. Postcard, from Empire Cotton Growing Corporation, Cotton Research Station, Trinidad, B.W.I., to K.Mather. 30.11.32. TS.

Informal International Genetics Congress, JIHI, October 28th 1945. Photograph of group, including: K.Mather, M.B.Crane, L.F.La Cour, C.D.Darlington, E.J.Collins, W.J.C.Lawrence, S.C.Harland, J.S.Huxley, etc. 1 black and white photograph, 19 x 13.5cm.

Berko, Stockholm. Photograph of crowded lecture hall, including: R.A.Fisher, E. von Tschermak, etc. c.1948. 1 black & white photograph, 29 x 23cm.

Wigan, L.G. Biological Society Social, 18th November, 1953. (Short pantomime script, including note: "This script must have been written by Wigan. KM 4 June 89." TS, 5ff.

Mather, K. Five photographs, black and white, depicting: (1) K.Mather talking to an unknown man, two other unknown men enter a building, n.d. 9 x 6cm.; (2) K.Mather talking to unknown man outside a building, verso inscribed: "I thought I had sent you this long ago. Ceppelini doesn't seem to like your remarks. Hugh." n.d. 11 x 7.5cm.; (3) K.Mather standing with an unknown man outside a building, verso inscribed: "Ottawa, September 1958." 7.5 x 10.5cm.; (4) K.Mather talks to an unknown man outside a building. n.d. 12 x 8.5cm.; (5) K.Mather talks to two other unknown men, seated in lounge. n.d. 12 x 8.5cm.

University of Birmingham. Biological Society, May 1956. Group photograph, black and white, by Morland Braithwaite, Moseley Village, Birmingham. (The group includes K.Mather). 1 mounted photograph, 20 x 13cm.

Mather, K. and Hancox, A. The riddle of character; Anthony Hancox interviews the Birmingham man whose work on this has just gained him a C.B.E. Birmingham Gazette, 1.6.56. 1p.



File no.128: (contd.)

Mather, K. BBC SCHOOL TELEVISION BROADCASTS: "SCIENCE FOR SIXTH FORMS": THE CELL AND NEW INDIVIDUALS.

Photographs, (black and white): T/A/24,491: Professor Kenneth Mather shows a microphotograph of chromosomes 'crossing-over' during meiotic division in spermatogenesis in the grasshopper. 23.11.59. 17.5 x 16.5cm.

T/A/24,492: Professor K.Mather showing stages in mitosis in the crocus. 23.11.59. 21.5 x 17cm.

T/A/24,494: Professor K.Mather pointing out the position of genes along chromosomes taken from the salivary gland of the fruit-fly, Drosophila.

T/A/24,495: Professor K.Mather (with grasshopper). 23.11.59. 16.5 x 21.5cm.

T/A/24,497: Professor K.Mather points out the position of various groups of atoms in a large-scale model of a DNA molecule. 23.11.59. 16.5 x 21.5cm.

T/A/24,498: Professor Mather shows a microphotograph of a stage in meiosis during spermatogenesis in the grasshopper. 23.11.59. 21.5 x 16.5cm.

Colloquio Internazionale sul tema: Evoluzione e Genetica, Rome, 7-11 April 1959. Accademia Nazionale dei Lincei.

Photographs (black and white): no.25: K.Mather speaks to two other men, a man and a woman are in the background. 18 x 24cm. no.54: K.Mather speaks to C.D.Darlington. 18 x 24cm. no.69: An unknown man gives an address. 18 x 24cm.

Genetics Congress, Holland, September 1963. Hague Congress Sept.1963 at the University of California dinner, 8.9.63. (black and white photograph), 18 x 13cm.

Lerner, R. Letter (accompanying above photograph) from 1 Ovington Gardens, SW3 to K.Mather. 16.9.63. holograph, 1p.

Mather, K. Portrait photograph of K.Mather, holding pipe. (Black and white photograph), 20 x 25cm. Two copies.

File no.129:

Fisher, R.A. Letter, from Galton Laboratory, Rothamsted Experimental Station, Harpenden, Hertfordshire, to K.Mather, concerning A.C.Fabergé. 14.2.41. typescript, 1f.

Mather, K. Letter to R.A.Fisher, concerning A.C.Fabergé. 16.2.41. typescript, 1f.

Fisher, R.A. Letter, from the Galton Laboratory, Rothamsted Experimental Station, Harpenden, Hertfordshire, to K.Mather, concerning A.C.Fabergé. 19.2.41. typescript, 1f.

Mather, K. Letter to R.A.Fisher, concerning A.C.Fabergé. 21.2.41. Typescript, 1f.

Fisher, R.A. Letter, from c/o Mrs.Shepherd, Dirleton (?), Haddington, to K.Mather, concerning A.C.Fabergé. n.d., holograph, 1f.

Fabergé, A.C. Letter, from Harpenden, to K.Mather, concerning Fabergé's life, background and behaviour. 3.9.41. typescript, 1f.



File no.129: (contd.)

Fabergé, A.C. Copy of a letter, from Harpenden, to R.A.Fisher. 3.9.41. typescript, 2ff.

File no.130:

Competition in Drosophila I: a case of stabilizing selection, by Anne McGill and Kenneth Mather.

Mather, K. and McGill, A. Competition in Drosophila I. A case of stabilizing selections. n.d. Holograph manuscript, 18ff.

Mather, K. and McGill, A. Correspondence concerning their joint paper on Drosophila, includes some ms. pages. 1.4.71-21.7.71. typescripts, 9ff.

Folder labelled: "Competitive Selection."

Haldane, J.B.S. The cost of natural selection. J.Genet., 1957, 55:511-524.

Smith, J.Maynard Disruptive selection, polymorphism and sympatric speciation. Nature, Lond., 1962, 195:60-62.

Sved, J.A., Reed, T.E. and Bodmer, W.F. The number of balanced polymorphisms that can be maintained in a natural population. Genetics, 1967, 55:469-481.

Mather, K., Bailey, B.J.R., Quenouille, M.H. and Wright, D.W.

Correspondence concerning natural selection arising from competition.

2.1.68-14.11.68. Mostly typescripts, with some tables, 15ff.

Turner, J.R.G. and Williamson, M.H. Population size, natural selection and the genetic load. Nature, Lond., 1968, 218:700.

(Loose material).

Smith, J. Maynard Sympatric speciation. Amer.Nat., 1966, 100:637-650.

King, J.L. Continuously distributed factors affecting fitness. Genetics, 55:483-492.

Sved, J.A., Reed, T.E. and Bodmer, W.F. Extract from article: The number of balanced polymorphisms that can be maintained in a natural population. Genetics, 1967, 55.

Allard, R.W., Harding, J. and Wehrhahn, C. The estimation and use of selective values in predicting population change. Heredity, 1966, 21:547-563.

Mather, K. and Bailey, B.J.H. Correspondence concerning natural selection. 2.4.68-13.7.68. holograph & typescripts, including tables, 15ff.

File no.131:

Coughtrey, A. and Mather, K. Interaction and gene association in diallel crosses. n.d., (post 1967), typescript, 19ff.

Jinks, J.L. and Mather, K. Correspondence concerning acceptance of above paper for Heredity. 17.3.69-29.3.69. typescripts, 5ff.

File no.132:

Human Diversity and Misc. Genetics, chiefly Man.

Human Diversity

Mather, K. Correspondence with: J.A.Fraser Roberts, R.C.Evans, C.O.Carter, T.J.B.Spencer, T.C.Carter, Douglas Grant, J.C.Graddon, T.McKeown, D.C.Martin, R.Pascal, D.A.Thin, M.Rawson, W.G.Henderson, Oliver & Boyd, C.D.Darlington, J.F.Walker, P.Medawar (?), G.Jahoda, Sir Herbert Andrew, Sir Robert Aitkin, concerning "Human diversity" by K.Mather; "Tuberculosis in Twins" by Barbara Simonds; Editorial matters concerning "Heredity"; and Mather's proposed paper on changes in breeding systems. (Includes 16 tables and graphs; a review of "Tuberculosis in Twins" by Barbara Simonds, Pitman Medical Publishing Co., 1963; Memorandum of Agreement with Oliver and Boyd; and Reviews of "Human Diversity"). 25.10.63- 28.1.65. typescripts and holographs).

Reprints.

Fischberg, M., et al. Nuclear transfer in amphibia and the problem of the potentialities of the nuclei of differentiating tissues. (Exp.Cell Res., Suppl., 1958, 6:161-178.)

Chung, C.S., et al. The ABO polymorphism in Japan. (Jap.J.Human Genetics, 1960, 5:124-134.)

Crow, J. and Morton, N.E. The genetic load due to mother-child incompatibility. (Amer.Nat., 1960, 94:413-419.)

Lowry, D.C., et al. Report on X-ray induction of variability in polygenic traits of chickens. (Poultry Science, 1960, 39:1270.)

Morton, N.E. The mutational load due to detrimental genes in man. (Amer.J.Human Genetics, 1960, 12:348-364.)

Muller, H.J. The meaning of freedom. (Bull. of the Atomic Scientists, 1960, 16:311-316.)

Ulrich, H. Die Beziehung zwischen Strahlendosis und Mutationsrate bei Röntgenstrahlung von Drosophila-Zygoten. (Rev.suisse de Zool., 1960, 67:287-295.)

Chetverikov, S.S., et al. On certain aspects of the evolutionary process from the standpoint of modern genetics. (Proc.Amer.Philosophical Soc., 1961, 105:167-195.)

Dunn, L.C. Big and little populations: an amateur's excursion. (Amer.Nat., 1961, 95:129-136.)

Dunn, L.C. Cross currents in the history of human genetics. (Presidential address at the meeting of the Amer.Soc. of Human Genetics, Atlantic City, 3.5.61, 23pp.)

Finn, R., et al. Experimental studies on the prevention of Rh haemolytic disease. (Brit.medical J., 1961, 1486-1490.)

Muller, H.J. The human future. (From: "The humanist frame" ed. by Julian Huxley, London, Allen & Unwin, 1961, pp.401-414.)

Muller, H.J. Genetic nucleic acid: key material in the origin of life. (Perspectives in Biol. and Medicine, 1961, 5:1-23; the whole of vol.5, no.1, is included in this collection.)

Catcheside, D.G. Functional structure of genes. (The Sci.Basis of Medicine Ann.Reviews,1962, pp.140-151.)

Huxley, J.S. Higher and lower organisation in evolution. (J.Roy.Coll.Surgeons of Edinburgh, 1962, 7:163-179.)

Darlington, C.D. The genetics of society. (Reprinted from A Symposium on Race: an inter-disciplinary approach, ed.A.J.Gregor, Hawaii U.P., 1963, 36pp.)

Medvedev, Z.A. On the history of science: Nikolay Ivanovich Vavilov - the pride of Soviet biology and agronomy (commemorating the 75th anniversary of birthday and 20th of deathday). (Byulleten' M.O-Va Isp.Prirody Otd. Biologii, 1963, 68:138-142.)

Steward, F.C. The control of growth in plant cells. (Sci.American, 1963, 167: 2-11.)

Steward, F.C. Totipotency and variation in cultured cells: some metabolic and morphogenetic manifestations. (Plant Tissue and Organ Culture: a Symposium, Delhi, Internat.Soc.of Plant Morphologists, pp.1-25.)

Steward, F.C. Carrots and coconuts: some investigations on growth. (Plant Tissue and Organ Culture-A Symposium, Delhi, Internat.Soc. of Plant Morphologists, 1963, pp.178-197.)

Steward, F.C. Growth and organization in free cell cultures. (Meristems & Differentiation, Brookhaven Symp. in Biol., 1963, 16: 73-88.)

Mayr, E. From molecules to organic diversity. (Fed.Procs., 1964, 1231-1235.)

Steward, F.C., et al. Growth and development of cultured plant cells. (Science, 1964, 143:20-27.)

Walker, J.T. Rough notes on genetic balance. 4pp.

Human Genetical Misc.

Diabetes.

Hargreaves, E.R. The epidemiology of Diabetes Mellitus. (Public Health, n.d. vol.71: 363-370.)

Robertson, W. Diabetes in Scotland before and since the introduction of insulin treatment. (Health Bull. issued by the Chief Medical Officer of the Dept. of Health for Scotland, 1951, 2:62-65).

Anon. Diabetes and pregnancy. (Brit.Medical J., 8.1.49, pp.62-63).

Barns, H.H.F. and Morgans, M.E. Pregnancy complicated by Diabetes Mellitus. (Brit. Medical J., 1949, 8.1.49, pp.51-54).

Joslin, E.P. A half-century's experience in Diabetes Mellitus. (Brit. Medical J., 13.5.50, pp.1095-1098).

Anon. Graphs: Population of England and Wales 11th to 20th century; Death rates; Tuberculosis; Small pox; Scarlet fever; Diphtheria. TS, 7ff.

- Mather, K. Correspondence with: J.F.Roberts, C.O.Carter, P.Medawar (?), A.Fraser, and J.G.Hawkes, concerning intelligence quotients, pyloric stenosis, Rhesus negative problem; (includes holograph notes and tables). 3.9.55-28.6.65. TS.
- Mourant, A.E. The blood groups of the Jews. (Jewish J.Sociol., 1959, 1:155-176).
- Reed, T.E. and Neel, J.V. Huntington's chorea in Michigan. 2. Selection and mutation. (Amer.J.Human Genetics, 1959, 11:107-136).
- Schull, W.J. Inbreeding effects on man. (Eugenics Quarterly, 1959, 6:102-109).
- Reed, T.E. The definition of relative fitness of individuals with specific genetic traits. (Amer.J.Human Genetics, 11:137-155).
- Liverpool Medical Institution. A Symposium on the Role of Inheritance in Common Diseases, Feb.18, under chairmanship of E.N.Chamberlain. (Lancet, 5.3.1960,pp.526-527).
- Carter, C.O. Genetic factors in Pyloric Stenosis. (Abstract). n.d. TS, 3ff.
- Mather, K. Human Diversity (Union Open Lecture, 15.2.62). Holograph, 3ff.
- Roberts, J.A.F. The genetics of mental deficiency. (Eugenics Review, 1952, 44:71-83).
- McKeown, T. and Brown, R.G. Medical evidence related to English population changes in the eighteenth century. (Population Studies, 1955, 9:119-141).
- Dobzhansky, T. and Allen, G. Does natural selection continue to operate in modern mankind? (Amer.Anthropologist, 58:591-604).
- McKeown, T. The influence of increased expectation of life on the genetic identity of human populations. (Acta Genetica et Statistica Medica, 1956/57, 6:369-382).
- Darlington, C.D. The control of evolution in man. (Woodhull Lecture). (Proc.R.Inst., 1958, 37:12pp.)
- Muller, H.J. Relations between cultural and biological evolution. (In: Evolution after Darwin, Univ. of Chicago Press, 1960, 3, 3ff.)
- Muller, H.J. Man's conquest of man. (In: "The Future of Man" , New York, J.E.Seagram, 1959, pp.33-36).
- Darlington, C.D. Marriage makes history. (New Scientist, n.d.,pp.942-4).
- Dobzhansky, T. Human nature as a product of evolution. (In: "New Knowledge in Human Values" ed. A.H.Maslow, pp.75-85).
- Dobzhansky, T. Genetics and the destiny of man. (Antioch Rev., Spring 1959, pp.57-68).
- Adrian, Lord The risks of progress. (The Listener, 1959, 62:927-930).
- Mather, K. What makes us what we are? (The Listener, 1959, 62:566-567).
- Medawar, P.B. The future of man. (The Listener, 1959, 62:863-866).
- Medawar, P.B. The meaning of fitness. (The Listener, 1959, 62:919-921).
- Medawar, P.B. The limits of improvement. (The Listener, 1959, 62: 967-969).

File no.132: (contd.)

- Medawar, P.B. The genetic system of man. (The Listener, 1959, 62:1027-1029).
- Medawar, P.B. Intelligence and fertility. (The Listener, 1959, 62:1067-1069).
- Medawar, P.B. The future of man. (The Listener, 1959, 62:1113-1115).
- Muller, H.J. The prospects of genetic change. (Amer.Scientist, 1959, 47:551-561).
- Newcombe, H.B. Heredity, health and radiation. (Can.J.Public Health, 1959, pp.140-147).
- Glass, D.V. et al. The control of evolution in man. (Eugenics Rev., 1959, 51:25-33).
- Muller, H.J. The guidance of human evolution. (Perspectives in Biol. & Medicine, 1959, 3:1-43).
- Neel, J.V. The genetic potential. (In: "The Nation's Children", 2: 1-23).
- Mourant, A.E. Human blood groups and natural selection. (Cold Spring Harbor Symp.Quantitative Biol., n.d.(post 1959), 24:57-63).
- Mather, K. Breeding systems and response to selection. n.d. TS, 10ff. (Two copies).
- Darlington, C.D. The social sciences. 1964, TS, 6ff.
- Carter, T.C. Medical Research Council Committee on Protection against Ionizing Radiations. Ionizing radiation and the socially handicapped. n.d. roneostat, 12pp.

File no.133:

- University of Birmingham.
- Examinations, 17.3.49, Dec.1949, 15.12.50, Dec.1958.
- Lectures: Course III Genetics, Lecture nos.1-21, 24 ,(4.10.49- 9.5.50).  
Cytology Course, Lecture nos.1-4 (23.4.49-19.5.49).  
Biological Statistics, Lecture nos. 1-3, 5-10, (11.1.49-15.3.49).

File no.134:

- Mather, K. and Jinks, J.L. Biometrical Genetics: the Study of Continuous Variation. London, Chapman and Hall, 1971 (1977). ISBN 0412 10220X. (Notes, proofs, reviews).

File no.135:

- Mather, K. Genetical Structure of Populations. London, Chapman and Hall, 1973. SBN 412 121409. (Galley proof and index, 189pp.) Includes letter from Ava Ray (A.B.P. Memorandum) concerning this work, 3.10.73.

File no.136:

- Mather, K. and Jinks, J.L. Introduction to Biometrical Genetics. London, Chapman and Hall, 1977. ISBN 0412 153106. (Galley proof,226pp., Index and Figures). Includes letter from K.Mather to K.Grant concerning this proof, 7.4.77.



File no.137:

Biometrical Genetics.

Mather, K. Correspondence with: J.L.Jinks, H.F.Robinson, M.H.Quenouille, T.I.Williams, D.M.Trevaskis, E.Highley, C.H.Eads, R.Lincoln, E.L.Breese, L.Bucio Alanis, D.C.Ingram, J.Dixon, B.D.West and M.A.Ommanney, 9.2.66 to 31.3.82, concerning the second edition of "Biometrical Genetics", papers, ICI Research Fellowships, Memoranda of Agreement, Referees Comments, American Edition, "Genetical Structure of Populations", "Introduction to Biometrical Genetics", "Biometrical Genetics", 3rd edition, London, Chapman & Hall, 1982. ISBN 0412228904.

Reprints:

Comstock, R.E., et al. Genetic variation in an asexual species: the garden strawberry. (Genetics, 1958, 43:633-646).

Gardner, C.O., et al. Dominance of genes controlling quantitative characters in maize. (Agronomy J., 1953, 45:186-191).

Moll, R.H., et al. Estimates of genetic variances and level of dominance in maize. (Genetics, 1964, 49:411-423).

Morrow, E.B., et al. Genetic variances in strawberries. (Proc.Amer.Soc.Hort.Sci., 1958, 72:170-185).

Robinson, H.F. Quantitative genetics in relation to breeding on the Centennial of Mendelism. (Ind.J.Genet., 1966, 26A:171-187).

Thoday, J.M. Location of polygenes. (Nature, Lond., 191:368-370).

File no.138:

MS: Biometrical Genetics.

Mather, K. and Jinks, J.L. Manuscript of "Biometrical Genetics: the Study of Continuous Variation." 3rd edition. London, Chapman and Hall, 1982. ISBN 0 412 22890 4. TS. Also includes letter to K.Mather from A.Crowden of Chapman & Hall, 1.6.82. TS, 1f.

File no.139:

Mather, K. Variation and Selection: typed script.

Mather, K. Variation and selection. n.d. Holograph, 89ff. (1 Oxford Pad).

Mather, K. Variation and selection. n.d. typescript, 79ff.

Chief Migration Officer, Office of the High Commissioner for Australia. Information from the Chief Migration Officer, Canberra House, 10-16 Maltravers Street, London, WC2, to K.Mather: "Information for persons travelling to Australia as full-fare paying passengers." 9.7.68. typescript, 3pp.

File no.140:

Meetings.

The Genetical Society. Programmes of 102nd, 104th, 107th, 108th, 110th, 113th, 119th, 121st, 122nd, 123rd, 124th, 125th, 126th, 128th, 129th, 131st, 132nd, 152nd, 153rd, 154th, 155th, 157th, 164th, 206th meetings, 1950-1987. (Includes a letter from E.B.Ford, Dept. of Zoology and Comparative Anatomy, University Museum, Oxford, to K.Mather. 25.3.50. TS 2pp.).

Society for Experimental Biology and Genetical Society.Symposium on Evolution. 7-11.7.52.

Other Meetings.

Biometric Society - British Region. 14.12.50. TS, 7ff. Includes a letter from E.A.G.Knowles, of the Dept. of Engineering Production, The University, Edgbaston, Birmingham, 15, to K.Mather. 9.6.54. Holograph, 1f.

Biometric Society - British Region. 29.11.51. TS, 2ff.

Biometric Society - British Region. 21.2.52. TS, 8pp.

Agricultural Research Council. Plant Breeder' Conference, Bayfordbury, 24-26 July 1952. TS, 9ff.

Institute of Biology: Biology as a Career. 4.10.52.

School of Agriculture, Cambridge: Subject Meeting: Disease Resistance in Crop Plants. 24-26.3.53. Includes a letter from K.S.Dodds, Potato Genetics Station, Huntingdon Road, Cambridge, to K.Mather. 5.3.53. TS, 1f.

International Congress of Genetics, 9th, Bellagio. 23-31.8.53. (Description by I.M.Lerner, Science, 1953, 118:708-709).

International Biometric Conference, III, Bellagio. 1-5.9.53. 65pp.

Associazione Genetica Italiana and Biometric Society, Regione Italiana. I Riunione scientifica della Associazione Genetica Italiana and IV Riunione annuale della Biometric Society, Regione italiana, Rome, 27-28.3.54. 4ff.

University of Birmingham. Institute for Engineering production: The Use of Operational Research in Increasing productivity. 20.4.54 - 1.5.54. TS, 9ff.

ICI Conference: Work Study: its Potential Use in Agriculture. 12.6.57. TS, 4pp.

Poultry Congress, 10th, Edinburgh. Notes on diet of chickens, including notes by K.Mather. TS & Holograph, 6pp.

Society for Experimental Biology, London Conference, 106th. 2-4.1.57. 8pp.

Medical Research Council. Conference to discuss Oak Ridge and Harwell Radiation Genetics Programmes. 26.4.57. TS and holograph notes, 10pp.

Royal Society. Demonstration: The lampbrush chromosomes of the newt Triturus cristatus carnifex. May 1957. TS, 3ff.

British Association for the Advancement of Science. Conference on the Supply of Scientists and Technologists for Industry. University of Leeds, 5.7.57. TS & Holograph, 4pp.

British Mycological Society, London Meeting. 8.3.58. (Includes: programme, notes by K.Mather, and paper by P.R.Day: Mutation to Virulence in Plant Pathogens.). 7ff.

International Congress of Zoology, 15th. 16-23.7.58. Programme, 70pp.

File no.140: (contd.)

Biometric Society - British Region. 28.2.61. Includes letter from K.Mather to C.D.Kemp, regretting he cannot attend. 22.2.61. TS, 1f.

Population Genetics Group, Birmingham Meeting. 11.1.68. TS & Holograph notes, 4pp.

Symposium on Genotype X Environment Interactions. Abstracts of papers. n.d., TS, 11ff.

Dobzhansky, T. Changes in inversion frequencies in Californian populations of Drosophila pseudoobscura since 1941. (XVth Internat. Congress of Zoology, Sect.II, Paper 36.-Includes notes by K.Mather on verso).

University of Birmingham. Unit of Biometrical Genetics. Unit Reports.

Unit reports, 1952-1961/62. (Including correspondence with K.Mather from: D.G.Catcheside, (25.5.58); and C.J.Hickman, (26.4.52).

Tables.

Mather, K. Tables. (One continuous stationery roll). n.d. Holograph.

Graphs.

"Hayward. Human chromosomes. (1 box containing graphs and photographs of chromosomes, n.d. 15 graphs, 5 black and white photographs of chromosomes).

Notebooks.

Mather, K. Medicinal Plants. (Includes correspondence of K.Mather with: F.J.Dyer (14.3.46, 11.4.46, 12.8.46, 15.8.46, 16.8.46, 20.8.46, 22.8.46, 23.8.46, 26.8.46, 28.8.46, 8.10.46, 9.10.46, 25.11.46, 2.1.47, 26.11.47), typescripts, 26ff.; J.E.Bentley, n.d. holograph, 2f.). Notes on: Atropa, Datura, Digitalis, Hyoscyamus. 1940-47. (1 hard-backed notebook).

Mather, K. Hens. 1936. (Includes "Photograph of chicks in hand.").

Mather, K. Digitalis: Lab.notes. IX. (Includes correspondence with: J.E.Bentley, (28.2.49), holograph, 1f.; and with F.J.Dyer, (23.2.49, 24.2.49, 25.2.49), typescripts, 4ff.) Notes on Digitalis. 1947. (1 hardback notebook).

Ringbinders.

Ringbinder no.1:

Symmetry. Exp.I. Book 1. Main lines (fertilities on separate sheets in Book 2)

Mather, K. Notes and tables: Selection Experiments on the L-R difference in Sternopleural Number. 25.8.49. Holograph, 4pp.

Mather, K. High selection: tables. n.d. Holograph, 37ff.

Mather, K. Low selection.: tables. n.d. Holograph, 37ff.

Ringbinder no.2:

Symmetry Exp I. Bk 1B. Main lines.

Mather, K. High selection B1: tables. n.d. Holograph, 33ff.

Mather, K. Low selection B.L.:tables. n.d. Holograph, 44ff.

Ringbinder no.3:

Symmetry. Exp.I Book 2 H x L, L x H, Uns. & all fertilities.

Mather, K. Expt I continued H x L and L x H crosses, also unselected lines: tables. n.d. Holograph, 29ff.

Mather, K. High line x low line. B.L.: tables. n.d. Holograph, 26ff.

Mather, K. Lowline x high line. B.L: tables. n.d. Holograph, 26ff.

Mather, K. Unselected: tables. n.d. Holograph, 30ff.

Ringbinder no.4:

Mather, K. Asymmetry. Exp.II. Tables. n.d. Holograph, 122ff.

Ringbinder no.5:

Mather, K. Notes: Polygenic inheritance (various authors). n.d.Holograph, 8ff.

Gowen, J.W. Genetic aspects of virulence in bacteria and viruses. Annals of the Missouri Botanical Garden, 1945, 32:187-211.

Mather, K. Notes: Sex and mating (various authors). n.d. Holograph, 7pp.

Mather, K. Notes: Mutation (various authors). n.d. Holograph, 2pp.

Mather, K. Notes: Social behaviour. n.d. Holograph, 1p.

Mather, K. Notes: Wild populations (various authors). n.d. Holograph, 5pp.

Mather, K. Notes (various authors): Heterochromatin. n.d. Holograph, 1p.

Mather, K. Notes: Cytogenetics (various authors). n.d. Holograph, 1p.

Mather, K. Notes: Breeding (various authors). n.d. Holograph, 3pp.

Mather, K. Notes: Genes (various authors). n.d. Holograph, 4pp.

Mather, K. The Polygenic System. Notes and tables. n.d. Holograph, 4pp.

Ringbinder no.6:

Mather, K. Chapter 1: references, Remarks on the ms., Minor alterations, graphs, Preface, Chapter 1: introductory, Chapter 2: Probability and significance, Chapter 3: Distributions, Chapter 4: Tests of significance, Chapter 5: The Significance of Single Observations, Sums, Differences and Means, Chapter 6: Degrees of Freedom and the analysis of variance. n.d. Typescript and Holograph, 101ff.

Ringbinder no.7:

Chapters 6-9. Chapter 7: Planning Experiments, Chapter 8: The Inter-relations of two variables, Chapter 9: Polynomial and multiple regression. n.d. Typescript and Holograph, 87ff.

Ringbinder no.8:

Chapters 10-12 & glossaries. Chapter 10: Correlation, Chapter 11: The analysis of frequency data, Chapter 12: Estimation and information, Glossary of terms, Glossary of formulae. n.d. Typescript and Holograph, 93ff.

Ringbinder no.9:

All Org & Skd. Tables. c.1950-1. Holograph.  
Genotypes of perennial rye-grass. I. Effect upon survival. II. Effect upon dry matter production. c.1985. Typescript, 40ff.

Ringbinder no.10:

Cv x Sk, etc. Tables. c.1948-49. Holograph, 110ff.

Ringbinder no.11:

Or x Skd, etc. Tables. c.1949. Holograph, 78ff.

Ringbinder no.12:

Tables, graphs: High Selection: Low Selection. n.d. Holograph, 102ff.

Books.

Elton, Charles S. The pattern of animal communities. London, Methuen, 1966.

(Signed: Kenneth Mather, March 1967. Includes a letter from Peter Wait, of Methuen, donating this book to Kenneth Mather [8.3.67] and Professor Mather's letter of acknowledgement [15.3.67]).

Lawrence, W.J.C. The young gardener. London, George Allen & Unwin, 1943.(Inscribed: Kenneth Mather with kind regards from William J.C.Lawrence, 10.6.43).

Lindley, D.V. and Miller, J.C.P. Cambridge elementary statistical tables. Cambridge, Cambridge University Press, 1953.

Stamped: Department of Genetics, The University, Edgbaston, Birmingham 15.

Mather, K. Analisis estadístico en biología. (Statistical analysis in biology). Madrid, Paraninfo, 1971.

(Two copies).

Mather, K. Analyse statistique en biologie. (Statistical analysis in biology). Paris, Gauthier-Villars, 1965.

Includes seven reviews of this work and a note from M.Lefebvre, the translator.(Four copies).



Books: (contd.)

Mather, K. Le differenze fra gli uomini; le base biologiche della individualita. (Human diversity: the nature and significance of differences among men). Turin, Boringhieri, 1969.

Signed: Kenneth Mather December 1969.

Mather, K. Elementos de biometria. (The elements of biometry).

Sao Paulo, Universidad de Sao Paulo, 1969.

(Three copies).

Mather, K. The elements of biometry.

London, Methuen, 1967.

(Two copies).

Mather, K. Human diversity: the nature and significance of differences among men.

Edinburgh, Oliver & Boyd, 1966.

(Three copies).

Mather, K. Statistical analysis in biology. (In Japanese). 4th ed.

Japan, 1951.

Mather, K. Statistische Analysen in der Biologie. (Statistical analysis in biology). 2nd ed.

Vienna, Springer, 1946.

(Five copies).

Punnett, R.C. Heredity in poultry.

London, Macmillan, 1923.

Signed: W.P.Pycraft and K.Mather Dec.1943.

Scott, D.H. An introduction to structural botany. Part II. Flowerless plants. 5th ed.

London, Adam and Charles Black, 1907.

Boxes of material:

Box 1:

Reports of the John Innes Horticultural Institution, 1910-11, 1913, 1917-26, 1928, 1930-53, 1955-58.

Box 2:

Annual report of the John Innes Horticultural Institution, 1959-74.

Box 3:

Annual report of the John Innes Institute, 1975-84.

Box 4:

John Innes leaflet, no.4 (Dec.1940), no.5 (March 1944), no.6 (Oct.1944), no.10 (1950), no.12 (Feb.1953, "With compliments, W.J.C.Lawrence".),no.13 (1955).

The Fruit, the Seed and the Soil: collected edition of the John Innes leaflets, nos.1-6. Edinburgh, Oliver and Boyd, 1948.

The Fruit, the Seed and the Soil: collected edition of the John Innes Leaflets nos.1-9. Edinburgh, Oliver and Boyd, 1949.

John Innes bulletin no.1: "Answers to growers." n.d.

Merton Thornless Blackberry." 4pp., n.d.

"The John Innes Horticultural Institution 1910-1935". 58pp.

"The John Innes Horticultural Institution, 1945." (Nature, 1945, 156:586). (two copies).

"John Innes Horticultural Institution": (list of senior staff, new plant varieties raised by the Institution, leaflets, books, special articles). May 1946, 4pp.

"John Innes Horticultural Institution":(list of senior staff, publications, recent books by staff). 1947, 4pp.

"John Innes Horticultural Institution":(information on the Institution, list of principal subjects under investigation, list of senior staff, etc.) n.d., 4pp.

"John Innes Horticultural Institution": (prospectus for student gardeners).n.d., 4pp.

"John Innes Horticultural Institution: Opening of Bayfordbury", 2 June 1950,(includes an invitation for Professor Kenneth Mather, F.R.S.).

"John Innes Horticultural Institution, 1910-1960, Merton 1910-1949, Bayfordbury, 1949-60, Jubilee 8 July 1960." 24pp.

Imperial Agricultural Bureaux. List of research workers, agriculture and forestry, in the British Empire, 1939. London, HMSO, 1940. 268pp.

Lawrence, W.J.C. Genetics and the John Innes Institute. September 1962. Typescript, 22ff.

John Innes Institute. "The proposed closure of the John Innes Institute - a statement by senior members of the Institute's Staff." June 1965, 3ff. (Attached is a list of addresses to whom the statement has been circulated).

Darlington, C.D. Letter, from Botany School, South Parks Road, Oxford, "Dear Colleague", suggesting a letter to The Times from university professors interested in teaching genetics might help to prevent the closure of the John Innes Institute. (Includes notes by K.Mather, a draft of such a letter and two copies of a "Bibliography of John Innes Removal (1965)).9.7.65. 4ff.

Genetical Society. Resolution passed by the Genetical Society on 30.6.65, breaking up of the John Innes Institute. 30.6.65. 1f.

Box 5:

"Nicotiana Correspondence."

Koch, P. "Nicotiana rustica" as a possible source of tobacco extract: preliminary notes. (J.Dept.Agric. Nov.1923, pp.1-6.)

Goodspeed, T.H. Cytotaxonomy of Nicotiana. (Bot.Rev., 1945, 11:533-592).

Oosthuizen, J. du P. Tobacco cultivation for nicotine: Nicotiana rustica species. (J.Dept.Agric. Feb.1923, pp.1-12).

Saunders, G. Letter, from John D.Wood & Co., 23, Berkeley Square, W.1. to Alison Vines. 13.9.48, 1f.

Gunary, H.S. (?) Letter, from Hollywood Farm, Tendring, Clacton-on-Sea, Essex, to Alison Vines. 13.9.48. 1f.

McMurtrey, J.E., and others. Growing tobacco as a source of nicotine. (US Dept.of Agric. Technical Bulletin no.820, June 1942, 39pp.

Heilpern, E. and P., J.R. Antirrhinum data. (Holograph notes). n.d. 5ff.

Smith, H.H. and Bacon, C.W. Increased size and nicotine production in selections from intraspecific hybrids of Nicotiana rustica. (J.Agric.Res., 1941, 63: 457-467).

Ward, G.M. Nicotine: a product of tobacco. (Canada. Department of Agriculture. Publication 730, 21pp.(1941)).

Goodspeed, T.H. Studies in Nicotiana III. A taxonomic organization of the genus. (Univ.of California. Publications in Botany, 1945, 18:335-344).

Goodspeed, T.H. Chromosome number and morphology in Nicotiana. VII. Karyotypes of fifty-five species in relation to a taxonomic revision of the genus. (Univ.of California. Publications in Botany, 18:345-368).

Thorne, P.A.C. Postcard, from Agricultural Research Council, 6A, Dean's Yard, S.W.1, to K.Mather. 15.3.49.

Mather, K. Letter to P.A.Thorne. 22.3.49. 2pp.

Thorne, P.A.C. Letter, from Agricultural Research Council, 6A, Dean's Yard, S.W.1, to K.Mather. 29.3.49. 1f.

Mather, K. Measurement and analysis of polygenic variation. Report on the Investigations 1948-9. 21.3.49. Typescript (carbon), 11ff.

Fryer, J.C.F. Letter, from Agricultural Research Council, 6A, Dean's Yard, to K.Mather. 29.6.48. 1f.

University of Birmingham. Registrar. Letter to J.C.F.Fryer. 30.6.48. 1f.

Mather, K. Letter to J.C.F.Fryer. 19.7.48. 1f.

Havelock, E.H.E. Letter, from Agricultural Research Council, 6A, Dean's Yard, S.W.1, to K.Mather. 16.3.48. 1f.

Mather, K. Letter to E.H.E.Havelock. 8.4.48. 1f.

Goodwin, C.S. Letter, from Agricultural Research Council, 6A, Dean's Yard, S.W.1, to K.Mather. 22.9.47. 1f.

Mather, K. Letter to C.S.Goodwin. 3.10.47. 1f.

Mather, K. Letter to E.H.E.Havelock. 2.6.47. 1f.

Havelock, E.H.E. Letter, from Agricultural Research Council, 6A Dean's Yard, S.W.1, to K.Mather. 1f.

Mather, K. Letter to E.H.E.Havelock. 12.3.47. 1f.

Mather, K. Letter to P.T.Thorne. 11.2.47. 1f.

Box 5: (contd.)

- Thorne, P.T. Letter, from Agricultural Research Council, 6A, Dean's Yard, S.W.1., to K.Mather. 1f.
- Havelock, E.H.E. Letter, from Agricultural Research Council, 6A, Dean's Yard, S.W.1, to K.Mather. 2pp.
- Darlington, C.D. Letter to E.H.E.Havelock. 7.1.47. 1f.
- Thorne, P.A. Letter, from Agricultural Research Council, 6A, Dean's Yard, S.W.1, to C.D.Darlington. 1f.
- Darlington, C.D. Letter to P.A.Thorne. 8.11.46. 1f.
- Darlington, C.D. Letter to P.A.Thorne. 8.11.46. 1f.
- Havelock, E.H.E. Letter, from Agricultural Research Council, 6A, Dean's Yard, S.W.1, to K.Mather. 8.3.46. 1f.
- Havelock, E.H.E. Letter, from Agricultural Research Council, 6A, Dean's Yard, S.W.1, to K.Mather. 25.2.46. 1f.
- Mather, K. Letter to E.H.E.Havelock. 19.2.46. 1f.
- Mather, K. Letter to E.H.E.Havelock. 6.12.45. 1f.
- Havelock, E.H.E. Letter, from Agricultural Research Council, 6A, Dean's Yard, S.W.1, to K.Mather. 3.12.45. 2pp.
- Duncan, J.G. Letter, from Agricultural Research Council, 6A, Dean's Yard, S.W.1, to K.Mather. 21.11.44. 1f.
- Mather, K. Letter to J.G.Duncan. 7.11.44. 1f.
- Duncan, J.G. Letter, from Agricultural Research Council, 6A, Dean's Yard, S.W.1, to K.Mather. 23.8.44. 1f.
- Mather, K. Letter to J.G.Duncan. 4.5.44. 1f.
- Duncan, J.G. Letter, from Agricultural Research Council, 6A, Dean's Yard, S.W.1, to K.Mather. 3.5.44. 1f.
- Duncan, J.G. Letter, from Agricultural Research Council, 6A, Dean's Yard, S.W.1, to K.Mather. 12.3.43. 1f.
- Mather, K. Letter to B.Horowitz. 14.2.49. 2pp. (Includes pencilled draft, 2pp).
- Horowitz, B. Letter, from Drug Houses of Australia Ltd., Developmental Division, Drug Plant Breeding and Cultivation Section, Terry Street, Rozelle, Sydney, to K.Mather. 16.6.48. 1f.
- Mather, K. Letter to B.Horowitz. 19.3.48. 1f.
- Horowitz, B. Letter, from Drug Houses of Australia Ltd., Developmental Division, Terry Street, Rozelle, Sydney, to K.Mather. 15.1.48. 1f.
- Horowitz, B. Letter, from Drug Houses of Australia Ltd., Developmental Division, Terry Street, Rozelle, Sydney, to K.Mather. 1.3.48. 1f.
- Mather, K. Letter to B.Horowitz. 1.5.48. 1f.
- Mather, K. Letter to B.Horowitz. 8.10.47. 1f.
- Horowitz, B. Letter, from Drug Houses of Australia Ltd., Developmental Division, Terry Street, Rozelle, Sydney, to K.Mather. 18.9.47. 2pp.
- Horowitz, B. Letter, from Drug Houses of Australia Ltd., Developmental Division, Terry Street, Rozelle, Sydney, to K.Mather. 6.6.47. 1f.
- Mather, K. Letter to B.Horowitz. 1.8.47. 1f.
- Barton, C.E. Letter, from Government Laboratory, Clement's Inn Passage, Strand, London W.C.2, to K.Mather. 5.1.48. 2ff.

Box 5: (contd.)

- Barton, C.E. Letter, from Government Laboratory, Clement's Inn Passage, Strand, W.C.2, to K.Mather. 3.12.48. 1f.
- Mather, K. Letter to C.E.Barton. 6.12.48. 1f.
- Mather, K. Letter to C.E.Barton. 1.12.48. 1f.
- Mather, K. Letter to C.E.Barton. 27.10.47. 1f.
- Barton, C.E. Letter, from Government Laboratory, Clement's Inn Passage, Strand, W.C.2, to C.E.Barton. 21.10.47. 1f.
- Mather, K. Letter to C.E.Barton. 20.10.47. 1f.
- Mather, K. Letter to C.E.Barton. 18.2.47. 1f.
- Mather, K. Letter to C.E.Barton. 11.2.47. 1f.
- Wigan, L.G. Letter to C.E.Barton. 22.11.46. 1f.
- Mather, K. Letter to F.R.Ennos. 19.11.46. 1f.
- Ennos, F.R. Letter, from Government Laboratory, Clement's Inn Passage, W.C.2, to K.Mather. 14.2.46. 2ff.
- Ennos, F.R. Letter, from Government Laboratory, Clement's Inn Passage, W.C.2, to K.Mather. 22.1.46. 2ff.
- Mather, K. Letter to F.R.Ennos. 8.11.45. 1f.
- Ennos, F.R. Letter, from Government Laboratory, Clement's Inn Passage, W.C.1, to K.Mather. 6.11.45. 1f.
- Ennos, F.R. Letter, from Government Laboratory, Clement's Inn Passage, Strand, W.C.2, to K.Mather. 22.1.46. 1f.
- Mather, K. Letter to F.R.Ennos. 10.1.46. 1f.
- Mather, K. Letter to F.R.Ennos. 5.11.45. 1f.
- Ennos, F.R. Letter, from Government Laboratory, Clement's Inn Passage, W.C.2, to K.Mather. 12.1.45. 1f.
- Mather, K. Letter to F.R.Ennos. 18.11.44. 1f.
- Ennos, F.R. Letter, from Government Laboratory, Clement's Inn Passage, W.C.2, to K.Mather. 10.11.44. 1f.
- Mather, K. Letter to F.R.Ennos. 8.11.44. 1f.
- Ennos, F.R. Letter, from Government Laboratory, Clement's Inn Passage, W.C.2, to K.Mather. 27.1.44. 2pp.
- Briggs, E.L. Letter, from The British Nicotine Company, Ltd., Bootle, Liverpool 20, to K.Mather. 14.3.49. 1f.
- Briggs, E.L. Letter, from The British Nicotine Company, Ltd., Bootle, Liverpool, to K.Mather. 18.1.49. 6ff. (Includes sheets of results of experiments on Nicotiana).
- Briggs, E.L. Letter, from The British Nicotine Company, Ltd., Bootle, Liverpool, to K.Mather. 24.9.48. 1f.
- Mather, K. Letter to E.L.Briggs. 27.9.48. 1f.
- Hoy, A.G. Letter, from The British Nicotine Company, Ltd., Bootle, Liverpool, to K.Mather. 21.9.48. 1f.
- Beckley, E. Letter, from Surrey Agricultural Executive Committee, "Elgin", London Road, Guildford, to K.Mather. 18.9.48. 2pp.
- Mather, K. Letter to E.Beckley. 20.9.43. 1f.
- Mather, K. Letter to the County Horticultural Advisory Officer, "Elgin", London Road, Guildford. 16.9.48. 1f.



Box 5: (contd.)

- Hoy, A.G. Letter, from The British Nicotine Company, Ltd., Bootle, Liverpool. 15.9.48. 1f.
- Mather, K. Letter to A.G.Hoy, (not Hay, as written). 20.9.48. 1f.
- Briggs, E.L. Letter, from the British Nicotine Company, Ltd., Bootle, Liverpool, 20. 24.8.48. 1f.
- Mather, K. Letter to E.L.Briggs. 4.8.48. 1f.
- Briggs, E.L. Letter to K.Mather. 29.7.48. 1f. (Includes the rough draft of a letter from K.Mather to E.L.Briggs).
- Mather, K. Letter to E.L.Briggs. 28.7.48. 2pp.
- Briggs, E.L. Letter, from The British Nicotine Company, Ltd., Bootle, Liverpool, 20, to K.Mather. 27.7.48. 1f.
- Reid, J.H. Letter, from The British Nicotine Company, Ltd., Bootle, Liverpool, 20, to K.Mather. 19.4.48. 1f.
- Burgis, M.D.H. (?) Letter, from The British Nicotine Company, Ltd., Bootle, Liverpool, 20, to K.Mather. 1.4.48. 1f.
- Mather, K. Letter to J.H.Reid. 16.4.48. 3ff. (Includes tables).
- Briggs, E.L. Letter, from The British Nicotine Company Ltd., Bootle, Liverpool, 20, to K.Mather. 12.3.48. 1f.
- Briggs, E.L. Letter, from The British Nicotine Company Ltd., Bootle, Liverpool, 20, to K.Mather. 10.3.48. 2ff. (Includes abstract).
- Mather, K. Letter to E.L.Briggs. 11.3.48. 1f.
- Briggs, E.L. Letter, from The British Nicotine Company, Ltd., Bootle, Liverpool, 20, to K.Mather. 5.2.48. 1f. (Includes the following article):
- Curteis, W.M. The growing of Nicotiana rustica to meet the demand for nicotine sulphate. (Agric.Gazette of New South Wales, 1.9.47). 3ff.
- Mather, K. Letter to E.L.Briggs. 6.2.48. 1f.
- Briggs, E.L. Letter, from The British Nicotine Company Ltd., Bootle, Liverpool, 20, to K.Mather. 1f.
- Briggs, E.L. Letter, from The British Nicotine Company Ltd., Bootle, Liverpool, 20, to K.Mather. 22.1.48. 1f. (Includes the following notes):
- British Nicotine Company. Home grown nicotine content leaf (Nicotiana rustica): present knowledge. n.d. 2ff.
- Mather, K. Letter to E.L.Briggs. 27.1.48. 1f.
- Briggs, E.L. Letter, from The British Nicotine Company Ltd., Bootle, Liverpool, 20, to K.Mather. 20.1.48. 1f.
- Mather, K. Message, from John Innes Institution, to E.L.Briggs. 12.1.48. 1f.
- Mather, K. Letter to E.L.Briggs. 10.1.48. 1f.
- Briggs, E.L. Message to K.Mather. 9.1.48. 1f.
- Briggs, E.L. Letter, from The British Nicotine Company Ltd., Bootle, Liverpool, 20, to K.Mather. 22.12.47. 1f.
- Mather, K. Letter to J.H.Reid. 19.12.47. 2pp.
- Reid, J.H. Letter, from The British Nicotine Company Ltd., Bootle, Liverpool, 20, to K.Mather. 16.12.47. 1f. (Includes the following notes):
- Briggs, E.L. Questions and Memo of Meeting with Dr.K.Mather of the John Innes Institute, Wimbledon on Thursday, 11th December 1947. 3ff.

Box 5: (contd.)

- Reid, J.H. Letter, from The British Nicotine Company Ltd., Bootle, Liverpool, 20, to K.Mather. 20.11.47. 1f. (Includes the following letter):  
Gardner, Wm. and Sons (Gloucester) Ltd. Letter, from Bristol Road, Gloucester, to J.H.Reid. 13.11.47. 1f.
- Mather, K. Letter to J.H.Reid. 24.11.47. 1f.
- Hanna, W. (?) Letter, from W.Gardner & Sons, Bristol Road, Gloucester, to the John Innes Horticultural Institution. 14.11.47. 1f.
- Hanna, W. Letter, from Wm.Gardner & Sons, Bristol Road, Gloucester, to the John Innes Horticultural Institution. 11.11.47. 1f.
- Reid, J.H. Letter, from The British Nicotine Company, Ltd., Bootle, Liverpool, 20, to K.Mather. 13.11.47. 1f (Includes note concerning despatch of Nicotiana seeds to J.H.Reid, 18.11.47, 1f.).
- Reid, J.H. Letter, from The British Nicotine Company Ltd., Bootle, Liverpool, 20, to K.Mather. 13.11.47. 1f.
- Mather, K. Letter to J.H.Reid. 24.11.47. 1f.
- Mather, K. Memorandum to G.R.Davies. 24.11.47. 1f.
- Reid, J.H. Letter, from The British Nicotine Company Ltd., Bootle, Liverpool, 20, to K.Mather. 10.11.47. 1f.
- Mather, K. Letter to J.H.Reid. 12.11.47. 1f.
- Mather, K. Letter to J.H.Reid. 8.11.47. 1f.
- Reid, J.H. Letter, from The British Nicotine Company, Ltd., Bootle, Liverpool, 20, to K.Mather. 1f.
- Mather, K. Letter to J.H.Reid. 1f.
- Hoy, A.G. Letter, from The British Nicotine Company, Ltd., Bootle, Liverpool, 20, to K.Mather. 1f.
- Reid, J.H. Letter, from The British Nicotine Company, Ltd., Bootle, Liverpool, 20, to K.Mather. 1f. (Includes two samples of material for drying the tobacco heads and a pencilled draft of an urgent letter to J.H.Reid from K.Mather). 1f.
- Mather, K. Letter to J.H.Reid. 1.10.47. 1f.
- Reid, J.H. Letter, from The British Nicotine Company Ltd., Bootle, Liverpool, 20, to K.Mather. 1f.
- Mather, K. Letter to J.H.Reid. 23.7.47. 1f.
- Davies, E.N. Letter, from The Chemical Trade Journal and Chemical Engineer, to The British Nicotine Company Ltd. 18.7.47. 1f.
- Horowitz, B. Letter, from Drug Houses of Australia Ltd., Terry Street, Rozelle, Sydney, to J.E.Cummins. 21.5.47.
- Pechey, R.F. Two copies of a letter to the Editor of "The Times" re home grown tobacco. 23.4.47. 1f.
- Lacy, F.B. Two copies of a letter to the Editor of "The Times" re home grown tobacco. 25.4.47. 1f.
- Done, W.J. Two copies of a letter to the Editor of "The Times" re home grown tobacco. 25.4.47. 1f.
- Selbourne, Two copies of a letter to the Editor of "The Times" re home grown tobacco. 26.4.47. 1f.

Box 5: (contd.)

- Brandon, D. Two copies of a letter to the Editor of "The Times" re home grown tobacco. 26.4.47. 1f.
- Coen, V. Two copies of a letter to the Editor of "The Times" re home grown tobacco. 26.4.47. 1f.
- Duncan, R. Two copies of a letter to the Editor of "The Times" re home grown tobacco. 28.4.47. 1f.
- Marsh, A.S. Two copies of a letter to the Editor of "The Times" re home grown tobacco. 30.4.47. 1f.
- Malcolmson, W.A. Two copies of a letter to the Editor of "The Times" re home grown tobacco. 30.4.47. 1f.
- Pechey, R.F. Two copies of a letter to the Editor of "The Times" re home grown tobacco. 5.5.47. 1f.
- Brandon, D. Two copies of a letter to the Editor of "The Times" re home grown tobacco. 5.5.47. 1f.
- Anon. Two copies of a letter to the Editor of "The Daily Mail". 5.5.47. 1f.
- Pechey, R.F. Two copies of a letter to the Editor of "The Times". n.d. 1f.
- Brandon, D. Two copies of a letter to the Editor of "The Daily Mail". 22.5.47. 1f.
- The Fruit Grower. Two copies of an Extract from "The Fruit Grower" 15.5.47. 1f.
- Reid, J.H. Letter, from The British Nicotine Company Ltd., Bootle, Liverpool, to K.Mather. 10.6.47. 1f.
- Mather, K. Letter to J.H.Reid. 9.6.47. 1f.
- Hoy, A.G. Letter, from The British Nicotine Company, Ltd., Bootle, Liverpool, to K.Mather. 3.6.47. 1f.
- Mather, K. Letter to J.H.Reid. 2.6.47. 1f.
- Reid, J.H. Letter, from The British Nicotine Company Ltd., Bootle, Liverpool, 20, to K.Mather. 24.4.47. 1f.
- Mather, K. Letter to J.H.Reid. 23.4.47. 1f.
- Reid, J.H. Letter, from The British Nicotine Company Ltd., Bootle, Liverpool, 20, to K.Mather. 16.4.47. 1f.
- Reid, J.H. Letter, from The British Nicotine Company, Ltd., Bootle, Liverpool, 20, to K.Mather. 3.1.47. 1f.
- Mather, K. Letter to J.H.Reid. 2.1.47. 1f.
- Reid, J.H. Letter, from The British Nicotine Company Ltd., Bootle, Liverpool, 20, to M.G.Shipton. 23.10.46. 1f. (Actually: Miss I.M.G.Shipton).
- Shipton, I.M.G. Letter, mistakenly addressed to "Dr.Rind", but actually to J.H.Reid. 22.10.46. 1f.
- Reid, J.H. Letter, from The British Nicotine Company Ltd., Bootle, Liverpool, to K.Mather. 21.10.46. 1f. (Includes an extract from "Chemical Trade Journal" no.3100, vol.119, 18.10.46. 1f.).
- Reid, J.H. Letter, from The British Nicotine Company Ltd., Bootle, Liverpool, 20, to K.Mather. 21.10.46. 1f.
- Reid, J.H. Letter, from The British Nicotine Company Ltd., Bootle, Liverpool, 20, to K.Mather. 26.3.45. 1f.

Box 5 (contd.)

- Mather, K. Letter to J.H.Reid. 24.3.45. 1f.
- Reid, J.H. Letter, from The British Nicotine Company Ltd., Bootle, Liverpool, 20, to K.Mather. 21.3.45. 1f.
- Reid, J.H. Letter, from The British Nicotine Company Ltd., Bootle, Liverpool, 20, to K.Mather. 9.3.45. 1f.
- Mather, K. Letter to H.Campbell. 16.4.47. 1f.
- Campbell, H. Letter, from Kigezi Industries Limited, Chigatta, Kabale, Uganda, mistakenly addressed to C.J.Mather (actually to K.Mather). 2.4.47. 1f.
- Campbell, H. Letter, from J.D.Campbell, Agricultural Chemical Manufacturer, 4,Lund St., Cornbrook, Manchester, 16, to K.Mather. 13.9.46. 1f.
- Campbell, R.D. Letter, from J.D.Campbell, Agricultural Chemical Manufacturer, 4,Lund St., Cornbrook, Manchester, 16, to K.Mather. 16.10.45. 1f.
- Mather, K. Letter to R.D.Campbell. 9.11.45. 1f.
- Campbell, H. Letter, from J.D.Campbell, Agricultural Chemical Manufacturers, 4,Lund St., Cornbrook, Manchester 16, to K.Mather. 17.2.45. 1f.
- Mather, K. Letter to E.H.E.Havelock. 26.2.45. 1f.
- Mather, K. Letter to H.Campbell. 24.2.45. 1f.
- Campbell, R.D. Letter, from J.D.Campbell, Agricultural Chemical Manufacturers, 4,Lund St., Cornbrook, Manchester 16, to K.Mather. 30.1.45. 1f. (Attached is hand-drawn map. 1f.).
- Mather, K. Letter to H.S.Campbell. 29.1.45. 1f.
- Campbell, R.D. Letter, from J.D.Campbell, Agricultural Chemical Manufacturer, 4,Lund St., Cornbrook, Manchester 16, to C.D.Darlington. 22.1.45. 1f.
- Latakia. Cutting from unknown newspaper: "Information box Latakia". n.d. 1f.
- Mather, K. Tables, concerning Nicotiana rustica. n.d. Holograph, 3ff.
- Pechey, R.F.
- Audsley, M.C. Photograph of tobacco plant: Nicotiana rustica, variety Olson 68 - seed plant also suckered & topped plants. Wyndmoor, Pa. 1946. Photo from E.G.Beinhart. Another photograph: N.rustica 1946, Wyndmoor,Pa., variety = a German strain secured from Prof.Koenig, Spring 1944. Photo from E.G.Beinhart. (Both photos: 10 x 13cm., b. & w.).
- Mather, K. Letter to Messrs.Harrison & Self. 29.10.42. 1f.
- Harrison & Self. Letter, from 17, Bloomsbury Square, W.C.1, to K. Mather. 27.10.42. 1f.
- Mather, K. Letter to Messrs. Harrison & Self. 23.10.42. 1f.
- Salisbury, E.J. Letter, from Willow Pool, Radlett, Herts., to C.D.Darlington. 20.10.42. 1f.
- Salisbury, E.J. Letter, from Willow Pool, Radlett, Herts., to C.D.Darlington. 5.10.42. 1f.
- Darlington, C.D. Draft of a letter to E.Salisbury, (written at base of above letter). 5.10.42. 1f.



Box 5: (contd.)

- Mather, K. Note, probably written by K.Mather, concerning assaying of tobacco samples. n.d. 1f.
- Salisbury, E.J. Letter, from Willow Pool, Radlett, Herts., to C.D.Darlington. 1.9.42, 1f.
- Mather, K. Breeding Nicotiana rustica for nicotine content. 28.9.42. 1f.
- Darlington, C.D. Letter to E.J.Salisbury, (also, another handwritten copy). 28.9.42. 1f.
- Mather, K. Breeding Nicotiana rustica for nicotine content. 28.9.42. 1f. (Includes handwritten notes by C.D.Darlington).
- Mather, K. Letter to The Director, New York Agricultural Experiment Station. 9.12.42. 1f.
- Mather, K. Letter to O.Olsen, U.S.Dept. of Agriculture & Pennsylvania Agricultural Experiment Station. 20.10.42. 1f.
- Mather, K. Letter to Sir E.J.Russell. 14.12.41. 1f.
- Mather, K. Letter to B.A.Keen. 8.12.42. 1f.
- Russell, E.J. Letter, from Rothamsted Experiment Station, Harpenden, Herts., to K.Mather. 11.12.42. 1f.
- Mather, K. Letter to E.J.Russell. 29.10.42. 1f.
- Mather, K. Letter to H.A.Tempany. 4.5.44. 1f.
- Tempany, H.A. Letter, from Colonial Office, Palace Chambers, Bridge St., S.W.1, to K.Mather. 3.5.44. 1f.
- Blunt, D.L. Letter, from Dept. of Agriculture, Nairobi, Kenya, to H.A.Tempany. 19.4.44. 1f.
- Martin, G.F. Letter, from Director of Agriculture's Office, Entebbe, Uganda, to H.A. Tempany. 21.4.44. 1f.
- Darlington, C.D. Letter to J.V.Natividade. 29.10.42. 1f.
- Natividade, J.V. Letter, from Alcobaca, Portugal, to C.D.Darlington. 4.1.43. 1f.
- Mather, K. Letter to B.Y.Morrison. 9.4.43. 1f. (Includes: label, inspection slip and export permit. 3ff.).
- Mather, K. Letter to E.G.Beinhart. 16.12.47. 1f. (Includes sheet, giving the dates of sowing, planting out and flowering of Nicotiana rustica, original version and typed copy).
- Mather, K. Letter to E.G.Beinhart. 8.4.47. 1f.
- Beinhart, E.G. Letter, from U.S.Dept. of Agriculture, Eastern Regional Research Laboratory, Chestnut Hill Station, Philadelphia, to K.Mather. 20.3.47. 2pp.
- Mather, K. Letter to E.G.Beinhart. 11.3.47. 1f.
- Beinhart, E.G. Letter, from Eastern Regional Research Laboratory, Chestnut Hill Station, Philadelphia, to K.Mather. 8.1.47. 2pp.
- Wallace, T. Letter, from University of Bristol, Dept. of Agriculture and Horticulture, Research Station, Long Ashton, Bristol, to K.Mather. 15.12.45. 1f.
- Mather, K. Letter to T.Wallace. 10.12.45. 1f.



Box 5: (contd.)

- Martin, H. Letter, from University of Bristol, Dept. of Agriculture and Horticulture, Research Station, Long Ashton, Bristol, to K.Mather. 4.10.45. 1f.
- Mather, K. Letter to H.Martin. 1.10.45. 1f.
- Martin, H. Letter, from University of Bristol, Dept. of Agriculture and Horticulture, Long Ashton, Bristol. 29.9.45. 1f.
- Mather, K. Letter to H.Martin. 25.9.45. 1f.
- Haskell, G.M.L. List of articles by Gordon Haskell. List of publications. n.d. 2ff.
- Larson, R.H. Letter, from University of Wisconsin College of Agriculture, Madison, to K.Mather. 5.9.46. 1f.
- Mather, K. Letter to R.H.Larson. 2.10.46. 1f.
- Mather, K. Letter to R.H.Larson. 13.6.46. 1f.
- Mather, K. Letter to R.Duncan. 19.3.48. 1f.
- Duncan, R. Letter, from Meade Farm, Welcombe, Nr.Bude, N.Cornwall, to K.Mather. 15.3.48. 2pp.
- Duncan, R. Letter, from Meade Farm, Welcombe, Nr.Bude, N.Cornwall, to K.Mather. n.d. 1f.
- Mather, K. Letter to R.Duncan. 22.3.48. 1f.
- Mather, K. Letter to E.Anderson. 2.4.43. 1f.
- Anderson, E. Letter, from Washington University, The Henry Shaw School of Botany, Saint Louis, to K.Mather. 29.1.43. 1f.
- Mather, K. Letter to E.Anderson. 9.12.42. 1f.

Box 6: Reports.

- Mather, K.(?) Measurement and analysis of polygenic variation: report on the investigations 1948-9. n.d. 8ff.
- Mather, K. Genetics Department: Dr.Mather's report. n.d. 19ff.
- Shipton, I.M.G. Letter to K.Mather. (Includes a list of collaborators). 10.1.49. 2ff.
- Mather, K. Genetics Department: Dr.Mather's report. n.d. 24ff.
- Behr, I.M. Letter, from John Innes Horticultural Institution, to K.Mather. 5.1.48. 1f. (Includes List of Publications, 1948, of K.Mather).
- Mather, K. Letter to I.M.G.Shipton. 7.1.49. 2pp. (Includes a separate list of abstracts of papers by K.Mather, 1948.).
- Mather, K. Genetics Department: Dr.Mather's report. n.d. 15pp.
- Wigan, Misro & Thompson (?). Notes: Lethality and recombination.n.d. 3ff.
- Harrison, B.J. Antirrhinum 1948: data, including letter, from John Innes Horticultural Institution to K.Mather. 1.11.48. 10ff.
- Anon. Cleistogamy in an Antirrhinum species cross (majus x glutinosum). c.1948. 12pp.
- Haskell, G.M.L. Letter, from John Innes Horticultural Institution to K.Mather. 14.12.48, including "Report to Dr.Mather and Mr.Crane from Gordon Haskell, December 1948." 5pp.

Box 6: (contd.)

- Mather, K. Letter to G.M.L.Haskell. 16.12.48. 1f.  
Haskell, G.M.L. Letter, from John Innes Horticultural Institution, Merton, to K.Mather. 20.12.48. 2pp.  
Mather, K. Letter to G.M.L.Haskell. 23.12.48. 1f.  
Anon. Varietal differences in crossability of French beans. n.d. 6ff.  
John Innes Horticultural Institution. Thirty-seventh annual report, 1946. 33pp.  
John Innes Horticultural Institution. Thirty-eighth annual report, 1947. (Includes: Genetics Dept. Dr.Mather's report, (with proof corrections, 9pp.).  
Anon. The John Innes Horticultural Institution, 1945. (Nature, 1945, 156:586). (8 copies).  
Mather, K. Genetics Department: Dr.Mather's report. n.d. 16ff.  
John Innes Horticultural Institution. Director's report. n.d. 5ff.  
Mather, K. Genetics Department: Dr.Mather's report. n.d. 9ff.  
Beale, G.H. Letter, from 1 Platoon B Company, I.T.C.East Surrey Reg., Richmond Park Camp, Kingston-on-Thames, to K.Mather. 17.2.41. 2pp.  
Association of Scientific Workers. The agricultural scientist and the Association of Scientific Workers. n.d. 4pp.  
Association of Scientific Workers. The Association of Scientific Workers. c.1942. 4pp.  
Pellew, C. C.Pellew's report. 1941 (18th Feb.1942). 2ff.  
Pellew, C. C.Pellew's report. 1940. 2pp.  
Anon. Primula sinensis. n.d. 2ff.  
Anon. Tolmeia Menjiesci, Verbascum phoenicium. n.d., 1f.  
Mather, K. Variation and selection. n.d., 2ff.  
Anon. Strep. n.d., 2pp.  
Dawson, C.D.R. Notes for annual report. n.d. 3pp.  
Anon. Epilobium, Phaseolus vulgaris X multiflorus, Drosophila. n.d. 1f.  
Anon. Account of work 1944. n.d. 1p.  
Anon. Sub-lethality in Strep. n.d. 2ff.  
Association of Scientific Workers. War, production and scientists. n.d. 2pp.  
John Innes Horticultural Institution, John Innes Association. The Journal of the John Innes Association. nos.8,9. 1941-42.  
John Innes Horticultural Institution. Annual reports, 1938-44. (Two copies of 1941 and 1942).  
John Innes Horticultural Institution. Merton Thornless Blackberry. 4pp.  
Robertson, T.A., ed. Food for thought. A series of articles on gardening problems by well-known experts in horticulture. c.1943. 24pp.  
John Innes Horticultural Institution. Report, Genetics Dept. n.d. 8ff.  
De Winton, D. Diploids, Primula sinensis. n.d. 3ff.  
Pellew, C. Report 1939. n.d. 3ff.  
Anon. "One-way incompatibility" reported last year investigated...n.d. 1f.  
Anon. Maize, Lotus. n.d. 2ff.  
Beale, G.H. Verbena. n.d. 2ff.  
Anon. Strep. n.d. 3ff.

Box 6: (contd.)

- Anon. Primula sinensis, Verbena, Pisum, Maize, Lotus, Tropaeolum. n.d. 5ff.
- Anon. Lotus. n.d. 2ff.
- Muller, H.J., et al. Gene rearrangement in relation to radiation dosage. (Proc.Genetical Soc., 1938).
- Koller, P.C. The structure of the sex determining mechanism in the field mouse. (Proc.Genetical Soc., 1938).
- Lewis, D. Differential fertilization in Rubus idaeus L. (Proc.Genetical Soc., 1938).
- Ellerton, S. and Stebbins, G.L. Structural hybridity in American species of Paeonia. (Proc.Genetical Soc., 1938).
- Dawson, C.D.R. Report on 1938: maize, Lotus corniculatus. n.d. 2ff.
- Anon. Diploids, Primula sinensis. n.d. 3ff.
- Pellew, C. Report on genetical studies of the first reciprocal translocation found in Pisum sativum. (J.of G.) n.d., 3ff.
- Beale, G.H. Notes for report. n.d. 5ff.
- Anon. Streptocarpus. n.d. 2ff.
- Imperial Agricultural Bureaux. Executive Council. List of research workers, agriculture and forestry, in the British Empire 1938. 1938. 229pp.

Box 7:

- Mather, K. Genetics for schools. (School Science Review, 1953, 31:1-36).
- Mather, K. Tables. n.d. 6ff. (1 spiral-backed pad).
- Mather, K. Biographical material: includes biographies and publications. n.d. holograph and TS.
- University of London. Subjects of dissertations and theses and published work presented by successful candidates at examinations for higher degrees from 1937 to 1944. (Includes K.Mather: DSc, Genetics and Cytology, 1940. 4pp. (Two copies).
- Drosophila Information Service, no.9, Nov.1938. (Includes notes and tables).
- Mather, K. Nomography. Tables, including: Johannsen, W. Continued selection within pure lines of Kidney Bean. n.d. Holograph and TS, 27pp. (1 exercise book).
- Multiple Niche. Tables. Includes:
- Deakin, M.A.B. Sufficient conditions for genetic polymorphism. (Amer.Nat., 1966?, pp.690-692 (two copies)).
- Levene, H. Genetic equilibrium when more than one ecological niche is available. (Amer.Nat., 1953, 87:331-333).
- Prout, T. Sufficient conditions for multiple niche polymorphism. (Amer.Nat., 1968, 102: 493-496).
- Smith, J.M. Disruptive selection, polymorphism and sympatric speciation. (Nature, 7.7.62, pp.60-62). Includes holograph notes. (1 Oxford pad).
- Baumberg, S. Letter, from Dept. of Genetics, University of Leeds, LS2 9JT, to K.Mather, informing him of the Genetical Society's resolution to offer him honorary membership. TS, 1f.

Box 7: (contd.)

Ascensius, J.B. Booklet reproducing illustrations to and pages from the only known perfect copy of his Expositio hymnorum and Expositio sequentiarum, printed 'at the sign of the Sun' in London in 1502 by Wynkyn de Worde. 4pp.

Box 8:

Mather, K. Drawings and Photos.

Pen and ink drawings of chromosomes for Journal of Genetics, figs. 1-46. (mounted), n.d., 7ff.

Pen and ink drawings of chromosomes of P.spinosa and P.fruticans. n.d., (9 small pieces).

Mather, K. and Stone. X-rays. Pen and ink drawings and photographs of chromosomes for "Genetics". Figs. 1-30. (Mounted), n.d. 13ff.

Mather, K. Chromosomes: pen and ink drawings, graphs, diagrams, negatives and positives of chromosomes of: rat, Fritillaria, Lilium Henryi, Lilium regale, Figs. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, also: Figs. 1-3, with Chinese(?) annotations; two graphs are labelled: Number of chiasmata per bivalent. n.d. 29 pieces.

John Innes Horticultural Institution, Merton. List of Polygonatum etc. planted by Park Fence. Oct. 1930. Holograph, 2ff.

Fujii, K. Letter, from editor of "Cytologia", c/o Botanical Institute, Rigakubu 2-go Kan, Tokyo Imp. University, Hong-ku, Tokyo, Japan, to K.Mather, concerning Mather's paper on Lilium. 2.3.35. TS, 1f.

Redfield, H. and Mather, K. Correspondence between Helen Redfield, Pasadena, California and K.Mather concerning K.Mather's attack on her work. 22.11.32, 5.12.32. TS, 2ff.

Mather, K. X-Ray Drawings (Hereditas). Chromosomes: pen and ink drawings. 71 drawings. n.d.

Mather, K. Chromosomes: pen and ink drawings, photographs: "Hell Niger", P.tomentosa, Nuttalia cerasiformis, P.mume, P.mahale, Simonii, arms of chromosomes. n.d. 21 pieces.

Mather, K. Appendix: a list of the chromosome numbers included in the graphs: Vertebrata. n.d. post 1931. TS, 3ff.

Mather, K. Chromosomes: pen and ink drawings: C.speciosus, (?) Avium pralmessa, rat, Adonis vernalis. n.d. 15 pieces.

Mather, K. Chromosomes: pen and ink drawings with TS captions: Crocus Balansae, Anaphase of pollen grain division in irradiated Tradescantia bracteata, Anaphase in irradiated Crocus Balansae, Metaphase chromosomes of Crocus Balansae, Normal somatic chromosomes of Crocus Balansae. n.d. 5ff., 5 drawings.

Larter, L. Memorandum from Government Geneticist, Hope, Kingston P.O., Jamaica, to K.Mather. 25.4.33. TS, 1f.

Mather, K. Chromosomes: pen and ink drawings and photographs, Fig. 1: Genetics (Sansome) of callus, wood vessel, bud, groove, cortex; Figs. 2, 3-11 (Genetics, Sansome).

Mather, K. Chromosomes: pen and ink drawings and photographs: one inscribed: "La Cour's microscope". n.d. 32 pieces.

Box 8: (contd.)

- Antirrhinum. Water-colour paintings of three Antirrhinum flowers. n.d. 1f.  
Drosophila: photographs. n.d. 11 pieces.  
Photograph of unknown young man, smoking pipe, with trees in the background. n.d. 9 x 14 cm.  
Grant, A.L. Letter, from Bolus Herbarium, Kirstenbosch, Cape Province, to Sir Daniel Hall concerning Nemesia seed, 16.1.30, including a list of Nemesia Families 1930. Holograph and TS, 4ff.  
Mather, K. Chromosomes of Avium pralmesse (?): pen and ink drawing. n.d., 1 piece: 10 x 18 cm.  
Mather, K. Drosophila. Photographs. n.d. 13 pieces.  
Mather, K. Seedlings (24.4.41), 4 pieces. 17 x 10.5 cm. Dwarf Bean Trial at Merton, Old Garden, 1947. 2 pieces. 17 x 12 cm.  
Mather, K. Chromosomes: photographs (?Amer.Nat.), Figs.1-6, 7 other photographs of chromosomes. n.d. 8 pieces.  
Mather, K. Fig.26. The possible relation of structural changes to gene recombination in the mouse where four allelomorphs represent all combinations of two differences between which recombination has not, however, been observed:(table); References on pig-breeding; Notes on pig-breeding, n.d. post-1938. TS & holograph, 6ff.  
Mather, K. Miscellaneous photographs: Stature in inches-frequency (graph), chromosomes, segregation in barley, results of crossing two geographically distinct races of Epilachna chrysomelina. n.d. 4 pieces.  
John Innes Horticultural Institution, Merton. Photographs of: entrance drive, glasshouses, Manor House and plots. n.d. 5 pieces. 13 x 6 cm.

Box 9:

Drawings.

- Mather, K. Notes and tables: Blackman data Eryngium. n.d. holograph, 3pp.  
Drosophila: Two black and white photographs, showing Drosophila viewed from above and below. 11 x 17cm.  
Mather, K. Line drawing of cube: Fig.4.2, Table of z. n.d. 1f.  
Mather, K. Photograph of maize plants, with key. n.d. 21 x 12.5cm., (two copies).  
Mather, K. Number of living pigs per litter at birth, Fig.2; Graph A: Effect of litter size at birth on mortality up to 6 weeks. Photographs of graphs, n.d. 4ff.  
Mather, K. Graphs; opposition, reinforcement, coupling, repulsion; recombination; chaeta: generations; gene frequency: variation; distribution of phenotypes. n.d. 20 photographs of graphs.  
Mather, K. Tables: Nicotiana: corolla length (Smith); Barley: ear conformation; Oats: grain length (Quisenberry); Petunia: corolla length; Drosophila: abdominal chaetae; Analysis of variability in oats. n.d., pen and ink tables, 6ff.



Box 9: (contd.)

Mather, K. Graphs and Tables: Crossing-over; Dose in log units; Mean number of chaetae; Inbreeding - outbreeding; Genotypes; Fig.1: Genotypes; Fig.2, Fig.3: Variability-genotypes-phenotypes; Fig.4: Speed of variability release; Fig.5: Mean chaeta number; Fig.6: Internal balance -Relational balance; Fig.7: Natural - selected; Fig.8: New potential free fixed; Fig.9: Uncontrolled breeding. n.d. Photographs of tables and graphs, 22ff.

Mather, K. Line drawing: long-styled, mid-styled, short-styled. n.d. Photograph of a line drawing, 1f.

Mather, K. Photographs of drawings of a helical mollusc. n.d. (12 copies).

Meconopsis latifolia growing in boulder scree at 11,000 ft., near Bandapur, Erin Valley, Kashmir. On verso: Weather and plant disorders: tulips, tomatoes, apples. n.d. 1 printed page.

Mather, K. Pen and ink drawing of chromosomes: C.chrysanthus (?)54F 31.4/76.1 x 5400, etc. n.d., 1 pen and ink drawing, 7.5 x 7.5 cm.

Mather, K. Photographs of Antirrhinums, etc.: macroceras, strumosa, versicolor; anisocarpa, macroceras; macroceras, strumosa, versicolor, pulchella, Pagei. n.d. 8 black and white photographs, some tinted. 21.5 x 17 cm.

Mather, K. Five black and white photographs of chromosomes. n.d. 7 x 11 cm., 5.5 x 5 cm., 5.5 x 5 cm., 4.5 x 4.5 cm., 5 x 2.5 cm.

Mather, K. Two line drawings. n.d. 11 x 14 cm.

Mather, K. C.sativus Elseverij (?) 13.4/79.1 x 5400 14 chr. n.d., 1 pen and ink drawing 8 x 8.5 cm.

Mather, K. Pachytene unpaired portions(?) 25.2/17.1. n.d. 1 pen and ink drawing 14 x 8.5 cm.

Mather, K. Photographs of: K.Mather and H.C.Osterstock: 14 x 8.5 cm.; 14 photographs of Drosophila:( 9 are 9 x 10.5 cm., 5 are 10 x 13.5 cm.); photograph of chromosomes: 10 x 9.5 cm. (all are in a cardboard box labelled: Photographs of Drosophila).

Mather, K. Pen & ink drawings of chromosomes: C.ochroleucus(?) and C.Arluicus(?), n.d., 7 x 8 cm. & 8 x 8 cm.; L.regale, n.d., 9.5 x 9.5 cm.; C.chrysanthus and C.Etruscus, n.d.; C.Tomasinius, n.d. 7.5 x 9 cm.;C.chrysanthus, n.d.7 x 7.5 cm.;C.vitellinus, n.d. 9 x 8.5 cm.;C.graveolens, n.d., 9 x 6 cm.; C.chrysanthus, n.d. 7 x 5.5 cm.; C.Biflorus, n.d.8.5 x 8 cm.; pencil drawing:56.2 x104.1, n.d. 5 x 5.5 cm.; Lil regale W. n.d. 9 x 8.5 cm.; C.Balansae major 7.5 x 75.3, n.d. 9 x 8 cm.; C.hiemalis 44.3/77.9,n.d. 9.5 x 8 cm.;

C.Korolhour (?), 39.9/82.1, n.d. 8 x 9.5 cm.; "cell not near bud" x 4200, n.d. 12 x 7 cm.; 10 photographs of chromosomes, n.d., ranging from 4 x 5.5 cm. to 8.5 cm.; 60 10 x 6200 28.7/20.6, n.d. 6 x 8 cm.; C.zonalis 38.7/83.7 5.500, n.d. 5 x 9 cm.; C.chrysanthus (?) 544 23.7/86.2 x 5400, n.d. 9 x 8 cm.; L.cand. MF2 20.2/13.5 x 6200, n.d. 8.5 x 6 cm.; 53.4/104.3 n.d. 6 x 5 cm.;

Box 9: (contd.)

L.cand. x 6200 MF3 9.5 x 12.5 cm.; C.chrysanthus 54 H x 5400, n.d. 7.5 x 8.5 cm.; C.biflorus Type A, n.d. 9 x 8.5 cm.; a nucleus dividing, n.d. 10 x 8 cm.; COI x 6200, n.d. 10 x 7 cm.; CO.12 3.2/16.7 x 6200, n.d., 3 drawings: 10.5 x 8.5, 10 x 7 cm., 7 x 8 cm.; Ad reny (?) MF 14.3/10.5 x 6200, n.d. 7 x 10.5 cm.; Lil. regale MFw 32.8/16.7 x 6200, n.d. 8 x 8.5 cm.; False interlocking L.Dif. (?) MF W 37.8/28.3 x 6200 Lilium regale, n.d., 5 x 10 cm.; Lilium regale MFw 32.6/16.7 x 4200, n.d. 9.5 x 10.5 cm.; Lil Hen 2BE 35.8/21.5 x 6200, n.d. 5 x 8 cm.; 8 photographs of chromosomes: n.d., approx. 5 x 4 cm.; C.Korolhourj (?) 38.2/79.1 x 5400, n.d. 7 x 12 cm.; 2 drawings: Silene 4 24 + 4 ff. x 6200, n.d. 8 x 8 cm. and 7.5 x 7 cm.; Lil. reg 25.5/17.9 x 6200, n.d. 7 x 7 cm.; drawing of two chromosomes, no description, n.d. 7.5 x 8 cm.; C.hadriaticus (?) 41/114.7 BL 95 x 30, n.d. 5.5 x 6.5 cm.; C.biflorus 29.9/72.5 8 pair x 5400, n.d. 9 x 9 cm.; L/pyrenaceum x 6200 0.8/12.1, n.d. 10 x 8.5 cm.

Card Indexes.

Card Index. Mather, K. References (on catalogue cards). Various dates.

Mather, K. Card Index: with page references. (One drawer of catalogue cards, 5 x 3 inches).

Mather, K. Card index: containing cards listing genetical and cytological papers, mostly 1920's to 1940's, in alphabetical order of author. (4 drawers of catalogue cards).

Slides: Box 1:

Mather, K. Microscopic slides: T.S. of root of broad bean 7.3.27, L.T.S. of (Reading from back: Veg.Marrow Stem 10.3.27, T.S. Section of Veg.Marrow Stem of left-hand row:) 17.10.27, T.S.Toothwort scale showing hairs 2.11.28, TS & LRS of Bryony Stem 9.11.28, T.S. LRS L.T.S. Lime Stem 16.11.28, T.S. Buttercup root 16.11.28, Pinus Root - T.S. 3 different ages...7.12.28, L.S. Pinus root 7.12.28, Pinus leaf T.S. 18.1.29, Pinus stem T.S. L.T.S. LRS 18.1.28, T.S. at young & older...root of orchid 25.1.28, section of leaf of (?) Sciaclopitys 8.2.29, TS & L.S. of Aspidistra...8.2.29, T.S. of Acacia...15.2.29, (?) PTMT Rachis T.S. Aspidistra root...27.2.29, Water absath...(?)hairs T.S. 1.3.29, S.leaves of Cypredion -water storing velamen 1.3.29, Laminaria digitata...12.3.28, Batricosperm...(?) Red Alga 12.3.29, T.S. Thallus (?) Reboulis K17, T.S. Thallus Fagtella, Cephalozia Frollania (?), T.S.Antheridia anthoceros, A -TS Stem & Leaves Sphagnum 24.10.26(?), TS leaf 2 ages stem Polytrichum commun... 22.10.26, T.S. Riccia sporogonia, Blasia aneura, T.S. Rachis & T.S. Binna Angiopteris, LRS & TS Cones of Lycopodium clavatum, T.S. stem Selaginella..., T.S. top of leaf shoot Boetes lacustris, TS Recpina(?) & erect shoots of Lycopodium clavatum,

Slides: Box 1: (contd.)

LS & TS leaves of Isoetes lacusta ligule & sporangium, LS & TS cone Equisetum arvense, Serial sections of node in erect stem Equisetum limosum, T.S. rhizome Equisetum limosum, TS petiole (2 vascular systems fertile & sterile) & T.S. fertile part of leaf Botrychium, T. S. & L.S. Rachis osmundo regalis, T.S. root T.S. Rachis osmundo regalis, T.S. Todea Rachis, Dicksonia T.S. stem cortex..., Pteris aquilina T.S. rhizome & Rachis root, Hymenophyllum T.S. rhizome & leaf, T.S. rhizome petiole & root Polypodium vulgare 1929, T.S. series node of Marsilia, T.S. series node of Marsilia 2, T.S. of petiole of Marsilia 1929, no label, no label, no label, T.S. Piper stem medullary bunches T.S. Calycanthus stem - cortical bundles, T.S. leaf Ficus cystoliths, Potamogeton T.S. stem aquatic adaptation, T.S. Sueda fruticosa stem T.S. Beta maritima root, Psamma T.S. stem xerophilous adaptations, Dracaena T.S. stem anomalous secondary thickening, L.S. ovule Caltha, T.S. anther Funkia, Eleffaria

(?) T.S. seed, no label, no label, Nostoc (?) N. Bact...(Azotobacter).

Slides: Box 2:

L.R.S. Cycas (petiole), LS & TS Cycas leaflet, T.S. petiole Ceratozamia (?), LRS Ceratozamia petiole, T.S. leaf Ceratozamia, T.S. Cycas petiole, L.S. male cone Taxus, TS Aicimis (?) hypocotyl, TS stems 1) Hyoscyamus (int.phloem) 2) Conopodium (schlerench:), L.T.S. stem Robinia 1) 1st year 2) Old, TS. Stem 1) Old 2) 1 yr.old Robinia, L.T.S. Poinsettia cambium, T.S. Poinsettia cambium, T.S. Ficus (fig) stem False Rings, L.R.S. Vine (Vitis) stem. Phloem, Bignonia (?) T.S.stem do. Beta young & old do. Auricula, Aristolochia stem: old. LR.S 9 2 L.T.S. T.S. female organ Taxus stages, T.S. stem Aristolochia anomalous secondary old, T.S. stem young of Aristolochia, L.R.S. stem Zea mais, T.S. stem Zea mais, T.S. haulm Triticum, T.S. petiole & stem Tamus, L.R.S. & T.S. midrib Ficus elastica, T.S. leaves Cyperus festuca xanthorhea, T.S. leaf Plantago maritima..., TS. stem Casuarina (?) kleinia, T.S. rhizomes Petasites (?) agrophyllum, T.S. root alder..., Hairs of Drosera T.S. leaf Butterwort, 1) Potato bacillus 2) Sarcina (coccus), Spirogyra zygnum, Oscillatoria beggiottea, Merismopachia (?) synechococcus Haplosiphon diatoms, Cylindrispermum, Botryopsis cladophora, Castagnia 1) Normal 2) Squashed, Pylaiella 1) Pluri- 2) Unilocular sporangia, Mougiottia T.S. Conidium gametangia (?), Ulvalatuca Holdfast 9 thallus. t.s. thallus, Growing points Dictyota, Polysiphonia. 1) Thallus & retral part (?). 2) T.S. Ascophyllum showing attachment, Nemalion (?), Tetraspores Dictyota, Polysiphonia tetraspores, 1) Phytisma or Acer leaves. 2) Peziza T.S. fruct., Peronospora on Charlock T.S. stem, Albugo (cystopod on Capsella) T.S. stem, Yeast vegetative, Yeast asci, Puccinia 1) Malvactorr...(?) relutes (?)/spores. 2) Paorum Aeciclia spermatogonia, Nestria T.S. stromata & xylem of Fagus showing mycelium, T.S. bud Pinus, T.S. Abies L.S. Pinus leaf, T.S. Cedrus T.S. Picea leaf, L.S. female cone Young Old Pinus, L.S. male cone Abies,

Slides: Box 2: (contd.)

Pinus, L.R.S. stem Araucaria, L.T.S. stem Araucaria, T.S. stem Araucaria, T.S. and L.S. leaf Araucaria, T.S. Ov: Scale Agathis, L.S. stamen Araucaria, T.S. leaves Taxus Juniperus.

Slides: Box 3:

No.1: ?? Gall, no.5: no label, no.6: 2 B.E., no.7: B E , no.8:T 21, no.9: T 21A x 1, no.10: T21 X D, no.11: 21 A X 2 BET, no.12: A3 Pc APR, no.13: P185 37, no.14 Secale clo, no.15: 213 D T21(squared), no.16: a5 wheat, no.17: 1sr MF 1 21 (squared), no.18: Haploidy(?) G1 11F, no.19: G 2XMF Greenbuffer(?) 17 x 2, no.20: Y XX, no.21: no name, no.22: 2 B E Rhene(?). no.23: un factor(?) T K174 pmc p35 mt.

Slides: Box 4:

No.1: not used H 2.1 1/3, no.2: 2 B 1 17/2, no.3: H 3.1 25/2, no.4: 41 7.1 25/2, no.6: +1 2.1 1/3, no.7: +1 7.1 (1) 24/2, no.8: +1 7.3 9/3, no.9: 3.4 M/c, no.10: 2.1 25/2, no.12: +1 3.1 17/2, no.14: +1 4.1 25/2, no.15: 4.1 24/2, no.19: +1 7.3 (1) 24/2, no.22: 7.2 24/2, no.23: 3.3 17/2, no.24: 7.5(1) 9/3.

Illustrative Material: Framed and Mounted Pictures, Verses, etc.

"Bayfordbury, 6th July 1951." (Group of two persons, Kenneth Mather (left) talking to Julian Huxley (right).  
Black and white photograph, 11.5 x 15 cm.

British Association for the Advancement of Science, Section K, Birmingham Meeting 1950. Photograph by Roy Dixon...Birmingham 30.  
Black and white photograph, mounted but not framed, 29 x 13.5 cm.

Darlington, C.D.

Portrait, three-quarters profile, facing to left, (portrait bust).  
Black and white photograph, 19 x 22.5 cm.

Drosophila melanogaster female: acetocarmine preparation of salivary gland nucleus. x 1000. 10.9.40.  
Black and white photograph, 21.5 x 15 cm.

"Epithalamion on the Occasion of the Marriage of Dr.Kenneth Mather, 14.1.37."

Poem consisting of four verses, signed by staff of the John Innes Horticultural Institution.  
20 x 31 cm.

Illustrative Material: (contd.)

Fisher, R.A. and Mather, K., in academic robes, standing and conversing. Chicago 1952.

Black and white photograph, 19 x 23 cm.

Haldane, J.B.S.

Old Low's Almanack - Prophecies for 1949. J.B.S.Haldane, refusing to recant utterly, is denounced by the DAILY WORKER as a bourgeois pseudo-scientist. "Evening Standard." Cartoon by Low.

Black and white cartoon, 26 x 16.5 cm.

Haldane, J.B.S.

Cartoon of J.B.S.Haldane as a Fakir, - sitting on a bed of nails; drawn by Ronald Searle. "Punch", 2.2.55.

Black and white cartoon, 11 x 14 cm. (On reverse is a poem by:)

Hubbard, P.M. Go East, Old Man: Professor J.B.S.Haldane says he may take Indian citizenship "if the Indian Republic will have me."

Comic poem, four verses.

Mather, K.

Diagram, consisting of three horizontal columns: X SGO, II SGO, III SGO. Black and white photograph, 24.5 x 14 cm. (This photograph arrived in a frame, but the glass was broken; it is now unmounted.)

"Moses": a Half-Sider Cock from Light Sussex x Rhode Island Red. (Poultry Research Centre, Edinburgh).

Black and white photograph 10 x 15 cm.

"Svälöf, Summer 1934." (Group of eight persons, including Kenneth Mather, 2nd from right).

Black and white photograph, 21 x 15 cm.

"Very well then, hands up all those who propose to become birds."

"Punch", 12th December 1951. (Depicting mammoth, dinosaurs, et sim.)

Black and white cartoon. 18 x 23.5 cm.