

PROCEEDINGS OF THE
XIV INTERNATIONAL
ORNITHOLOGICAL
CONGRESS

Oxford 24-30 July 1966

Edited by
D.W.SNOW



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Preface by the President

The success of the XIV Congress at Oxford (and reports indicate that it was a success) is due primarily to one man, the Secretary-General, Dr N. Tinbergen. He had many helpers, who are acknowledged in the Secretary-General's report, but the main responsibility and the main burden were his, and I take this opportunity to thank him, on behalf of the whole Congress, for the distinction which he brought to his task and for the extremely hard work which he so ably undertook. Indeed at one time the burden seemed so heavy that I wondered whether it could be right for us, once every four years, to use a leading scientist for this post, to the detriment of his own research and hence of ornithological progress. But I have now changed this view because I see that the authority of a distinguished and respected scientist is needed to make the responsible decisions involved, to gain acceptance for them, and to obtain the many facilities, such as we enjoyed at Oxford, from other persons and organizations.

There is no doubt that the burden of organization would have been much less heavy if the Congress membership had been smaller, and we should all be exercised about the big increase in our numbers at each successive meeting. I believe, and so do many others, that the Congress is already too large, and that, unless numbers can be reduced, (a) we will lose further specialist groups in the way that, sadly, we have already lost almost all the ethologists (and among those who will not think it worth their while to come may be some of our most distinguished scientists), (b) potential host countries will be even more reluctant to invite a future Congress than they were this time (while many do not even possess the necessary accommodation), and (c) no distinguished scientist will be willing to act as Secretary-General. Hence I seriously suggest that, unless drastic steps can be taken, the Congress may destroy itself, at least as a gathering to discuss progress in our science at the highest levels, and valuable as the social side of the Congress is, the scientific side must come first. Any steps to reduce numbers will mean a reduction, perhaps a big one, in the subsidiary facilities and attractions of our Congress; but unless such steps are taken we may, instead, lose its essence. This may seem a sombre note on which to end, but recognition of a problem is the first step towards finding its solution.

On behalf of all our members, I thank most warmly all who helped at the Oxford meeting, and send best wishes to our Dutch hosts for 1970.

David Lack

Report by the Secretary-General

The ornithologists of Great Britain consider it a great honour to have been selected for the third time to act as hosts to the International Ornithological Congress. The Fourth Congress met in London in 1905 with 250 members under the Presidency of Dr R.Bowdler Sharpe; Dr E.J.O.Hartert and Mr J.L.Bonhote acted as Secretaries. Many of us still remember the Eighth Congress in 1934 when 350 members met in Oxford, with Dr E.Stresemann as President and the Rev. F.C.R.Jourdain as Secretary. Since then numbers have almost trebled—if this present trend continues the organization of future Congresses will become a major task which may well be beyond the powers of non-professional organizers, and in addition may put great demands on accommodation and lecture halls.

At the XIII Congress in Ithaca, Dr David Lack was elected President. Vice-Presidents for 1962-66 were:

Dr Salim Ali	Dr Alden H. Miller (deceased)
Dr F.Bernis	Dr F.Salomonsen

The British members of the International Ornithological Committee formed the core of the British Executive Committee, and Dr N.Tinbergen was elected Secretary-General. The full composition of the British Executive Committee, supplemented by a few co-opted members, was as follows:

The President	Mr G.Mountfort
The Secretary-General	Mr C.A.Norris
Miss P.Barclay-Smith	Dr I.D.Pennie
Mr S.Cramp, Treasurer	Col. H.M.Salmon
Dr J.M.Cullen, Local Secretary	Dr D.W.Snow, Editor
Sir Hugh Elliott, Bt.	Mr R.Spencer
Mr I.J.Ferguson-Lees	Sir Landsborough Thomson
Mr J.Fisher	Prof. W.H.Thorpe
Dr G.V.T.Matthews	Mr E.M.Nicholson
Mr J.D.Macdonald	Mr G.Waterston
Dr J.Monk	Prof. V.C.Wynne-Edwards
Mr R.E.Moreau	

Miss J.M.Allard was appointed Assistant to the Secretary-General, who also had the services of Miss A.Freeman-Taylor. Dr C.Perrins acted as the Assistant

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to the President; and Dr R.Dawkins took on the task of organizing transport and signposting.

The preparations for the Oxford Congress began in the autumn of 1962. The British Executive Committee, bearing in mind the article by E.M.Nicholson in *British Birds*, Vol. 53, 1960, and proposals made by the President, considered carefully how the Congress could meet the growing and changing demands of our science and of international communication. The first task, the choice of a place of meeting, was difficult. While much was to be said for meeting once more in Oxford, the growing membership could be feared to impose too heavy demands on the limited facilities available. As the President explained in his foreword to the Programme, Oxford was selected partly because it is at present active in ornithological research (in the Edward Grey Institute and the Animal Behaviour Research Group), and partly because it presents a nearly unique feature of English life. Also, it has a large number of small lecture rooms, ample accommodation in colleges, and an excellent social centre in Rhodes House. Large rooms for plenary sessions might prove too small, and there was no hall large enough for a Congress dinner if the membership should be as large as or exceed that of Ithaca, but these difficulties were not considered insurmountable.

The British Executive Committee accepted the decision, taken in Ithaca by the International Ornithological Committee, that the Congress need not be held in the breeding season. It was about to accept another recommendation, viz. that it need not be preceded or followed by field excursions, when the Scottish Ornithologists' Club proposed that they should organize a single study cruise in a ship large enough to hold all the Congress members. We are extremely grateful to the Scottish Ornithologists' Club for this opportunity to see Britain's finest seabird colonies, and for thus both adding a unique feature to this Congress and simplifying the organization of the Congress week in Oxford. A report on the Scottish Bird-Islands Study Cruise appears elsewhere in this volume (p. xix).

It was agreed to retain the customary mid-week break and to set aside the Wednesday for whole-day excursions on which members could relax and meet each other informally. In addition, during the Congress short visits were to be organized for small groups to places of ornithological interest in or near Oxford. A Sub-Committee on Excursions, headed by Mr John Buxton, and with Mrs S.Cowdy and Mrs M.Campbell as members, made the necessary arrangements and also undertook the organization of entertainments and ladies' programmes.

The British Executive Committee further decided to increase the membership fee considerably. This was done as an experiment in order to see whether the

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Congress could be made self-supporting, which would have the advantage that in future no small or poor country need fear that acting as host to the Congress would necessitate big outside grants or private gifts.

The large number of members expected made it further necessary to reconsider whether all offered papers should be accepted, which would of course increase the number of sections. The British Executive Committee decided to streamline the Congress in two ways:

(a) By authorizing its Programme Committee to be selective in the acceptance of offered papers. This was done by requiring would-be speakers to send in an abstract beforehand, a procedure to which many members submitted readily and which enabled us to print the abstracts before the Congress. It also had the advantage of leaving the authors free to publish their full accounts elsewhere.

(b) By inviting prominent workers to deliver, in Plenary Sessions, more comprehensive contributions dealing with fields of research which could be considered growing points of our science. It was hoped that such reports would stimulate future research. We are glad to be able to report that hardly any of the distinguished colleagues invited were unable to contribute.

This procedure had as a consequence a different publication policy. The British Executive Committee considered that the conventional Congress Proceedings were in danger of imposing too heavy a burden on the finances of the Congress since they often contained material that could justifiably be published in the normal ornithological journals, where it would also be more accessible. It was therefore decided not to publish any of the offered papers at all and instead to allow the invited speakers more space so that they could, if desired, print a more elaborate version of their actual lecture, which, owing to restrictions of time, might have to be too much condensed.

By thus reducing the total number of lectures it would be possible to make more time available for two other functions of the Congress which are gradually acquiring increased importance. All evenings were set aside for film shows, of which we had two running concurrently every evening; and the period from 1700 till 1900 hours was to be kept free for informal gatherings and for meetings of special committees.

The scientific programme was planned along these lines by a Sub-Committee on which the following members served:

The President	Dr J.Monk
The Secretary-General	Mr R.E.Moreau
Mr J.Boswall (films)	Dr D.W.Snow

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Dr J.M.Cullen

Dr W.H.Thorpe

Dr G.V.T.Matthews

It screened the papers offered for the Sectional Sessions and allocated the task of organizing the Plenary Sessions to:

Dr David Lack	Population Ecology
Dr W.H.Thorpe	Vocal Communication
Mr R.E.Moreau	Systematics and Taxonomy
Dr G.V.T.Matthews	Orientation and Navigation
Dr N.Tinbergen	Aspects of Physiology

The British Executive Committee further decided that, as at previous Congresses, exhibits were to be organized. The exhibits would consist of photographs (to be selected by Mr Eric Hosking), bird art (to be organized by Dr E.A.R.Ennion and Mr R.Gillmor), and scientific exhibits (of which Dr C.Perrins would be in charge). For the selection of films we were fortunate to get the expert help of Mr J.Boswall of the Natural History Unit of the British Broadcasting Corporation.

The British Executive Committee accepted with gratitude the generous offers of the Hon. Mrs Lane and Mr Christopher Marler to organize private parties for large numbers of members at their homes in Elsfield and Weston Underwood respectively.

The Congress finally ended with a traditional Oxford Garden Party on the last afternoon of the Congress, instead of the conventional dinner, for which no hall could be found in Oxford which was large enough to hold the greatly increased membership.

Over 830 people attended the Congress in Oxford. The total membership was 687 Full and 203 Associates. This showed that the high membership fee had been no serious obstacle. A list of delegates representing scientific bodies is given on p. 375.

Registration for the Congress began on Sunday, July 24 at 1100 and members received, among other documents, the Volume which contained abstracts of all papers to be given at the Sectional meetings.

The Congress week opened on Sunday evening, July 24, with a formal meeting in the Sheldonian Theatre, designed by Sir Christopher Wren in 1664. Members were welcomed by 'ornithological music' played on the organ by Mr Martyn Parry of Brasenose College, who with the President had selected the following items:

Couperin *Le Rossignol en Amour*
 Les Fauvêtes Plaintives

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Rameau	Le Rappel des Oiseaux
Grieg	Vöglein
Haydn	Song of the quail: minuet from ‘The Musical Clocks’
Delius	On Hearing the First Cuckoo in Spring arranged for organ by Eric Fenby
Mozart	Der Vogelfänger from ‘Die Zauberflöte’ (The Magic Flute)
Handel	Concerto for organ No. 13 in F. major: The Cuckoo and the Nightingale

Brief words of welcome in various Congress languages were given by Overseas Delegates: Dr Salim Ali (on behalf of the English speaking peoples), Dr Jean Dorst (for the French), Dr Lars von Haartman (for the Fenno-Scandians), Dr E. Stresemann (for the Germans), and Dr Charles Sibley (for the Americans). They were followed by brief addresses from the Pro-Vice-Chancellor of Oxford University, A.L.P. Norrington, and the Linacre Professor of Zoology, J.W.S. Pringle. The President then summarized the main objectives of the Congress: members should be able to meet each other and exchange views informally; they should have the opportunity for bringing themselves up to date in their science by hearing review papers as well as reports on new research, and for discussing any international problems that might arise. He further explained how the British Executive Committee had attempted to adapt the Congress to the ever-changing requirements, and urged all members to give thought to the future of the Congress.

The Plenary Sessions, held each morning except on Wednesday, had a large attendance throughout, without being overcrowded. The full texts of the lectures form the bulk of the contents of this volume. It was regretted by all that, owing to the absence of Drs Dementiev and Gladkov, their planned joint paper could not be presented.

The Sectional Sessions, held each afternoon except on the Wednesday, were also well attended. The fear of the organizers that some sessions might attract disproportionately large numbers and thus become overcrowded was not realized. A special word of thanks is due to the chairmen and the speakers of these sessions which almost without exception kept strictly to their time limits, thus making it possible for members to move from one session to another in time to hear the papers of their choice.

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The following specialists' meetings were held:

European Ringing Committee.

Chairman: R-D.Etchécopar.

Meeting on Sea-Bird Research.

Chairman: V.C.Wynne-Edwards.

Ornithology of the Western Palearctic—a new project.

Chairman: E.M.Nicholson.

Report to the Congress by its Standing Committee on Nomenclature.

Chairman: E.Eisenmann.

International Bird Ringing Committee.

Chairman: R-D.Etchécopar.

Proposal by David Lack for an internationally agreed world list of birds.

Chairman: Jean Dorst.

International Union of Applied Ornithology: Annual General Meeting.

The meeting on Sea-Bird Research resulted in the formal recognition of the Committee on Sea-Bird Research as an Official Standing Committee of the International Ornithological Congress. Its composition is printed on p. xviii.

A report on the proposal by Dr David Lack for an internationally agreed world list of birds is printed on p. 365.

In spite of the limitations on bar facilities imposed by British law, Rhodes House was of great value as a social centre. During coffee and tea breaks, and particularly from 1700 to 1900 hours, many members congregated in its rooms and corridors, and, when the weather permitted, on the lawn. Here Miss Allard and Miss Freeman-Taylor and their helpers manned the desk of the Congress Secretariat; they were untiring in their efforts to meet the wishes of members. The helpers at the desk of the Entertainments Committee were rarely idle, and the exhibits in Rhodes House were seen by a constant stream of visitors.

The Photographic Exhibit consisted of a selection of the National Collection of Nature Photographs, assembled and kindly lent by the Nature Conservancy. The Art Exhibit in the Ashmolean Museum contained a selection of paintings, drawings and illustrations by the leading British bird painters of the last three centuries, while the Bear Lane Gallery housed an exhibit by ten living British bird artists. Both exhibits were visited by many and provided an attractive 'side show' for the main Congress.

The Wednesday excursions were made to: The Wildfowl Trust, Slimbridge; Whipsnade Zoological Park, Bedfordshire; The Royal Society for the Protection of Birds, Sandy; The British Trust for Ornithology, Tring; the Grey-Roosevelt

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walk in the New Forest; and a walk on the Berkshire Downs. All were favoured by good weather.

Dr Perrins and his helpers led numerous parties up the University Museum Tower to see the nesting Swifts, subjects of Dr D.Lack's book 'Swifts in a Tower'. Small parties were taken out to Wytham Woods, the estate belonging to Oxford University, where much of the work of the Edward Grey Institute is being carried out. Dr Glen W.Schaefer kindly demonstrated his radar tracking site near Lutterworth, Leicestershire, to parties of visitors.

Films were shown every evening except on Saturday, 30 July. In spite of critical selection, the number of worthwhile ornithological films was so large that two concurrent showings had to be laid on. Here again, our fears that the available rooms would be overcrowded proved to be without foundation.

The Hon. Mrs Lane opened her home at Elsfield to members throughout the week and many seized the opportunity to see the exhibits of photomicrographs, cameras, microscopes and field glasses and also the exhibition of bird sculpture by various artists. On Friday evening a private party held at Elsfield Manor continued until the early hours of the morning and was greatly enjoyed by all who attended.

On Tuesday evening Mr Christopher Marler kindly invited members to a private party at his home in Western Underwood, which was also much enjoyed.

A highlight of the Congress was the conferment of the Honorary Degree of Doctor of Science by Oxford University on Dr Ernst Mayr, President of the preceding Congress. A hundred members of the Congress were given seats in the Sheldonian Theatre and heard the University's Public Orator deliver the following oration:

Hector olim Polydamantem increpans 'nil curo' inquit 'genus alituum', quam vocem temerariam Nemesis exaudiit; hic vero hospes noster si quisquam avium scientiam pietate eximia prosecutus eventu fruitur felicissimo. in Germania natus eruditusque, mox, dum in Museo Zoologico Berolini laborat, usque ad Papuam insulasque Salamonias in expeditionem missus est. deinde mare Atlanticum transvectus studia Historiae Naturalis in Museo Novi Eboraci continuavit, unde ad Harvardianos abhinc tredecim annis migravit. in Oceani autem Pacifici insulis varias volucrum species diligenter scrutatus nova et gravia argumenta de formarum origine excogitata bello hoc altero nondum composito sollertissime protulit, ex quo tempore cum duobus collegis ingeniosissimis, quibus ambobus iam nos honores decrevimus, Georgio Simpson palaeontologo Theodosioque Dobzhansky in rebus geneticis exercitato investigationes perquam fructuosas com-

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municabat. quid? nempe Ovidius scripsit mare et terras et caelum a deo naturaque esse e Chao evoluta; nos autem Carolum Darwin atque cetera magna aetatis Victorianae ingenia, qui quam late pateret haec ratio dilucide demonstraverunt, meritis laudibus extollimus: hic tamen eandem rationem perspicaci mente, laboribus assiduis ad multiplicatam huius saeculi doctrinam unus omnium maxime accommodavit. idem iamdiu ephemeridas 'Evolutio' nominatas edit nuperque alterum librum egregium eadem de re conscripsit: idem abhinc quattuor annis Congressioni Ornithologiae Studiosorum sagacissime praesedit; denuo hac Congressione idque apud nos convocata libentissime excipimus ολωνοσκόπον praeclarissimum, Ernestum Walterum Mayr, inter Harvardianos Cathedram Zoologiae in memoriam Alexandri Agassiz constitutam summa omnium approbatione adeptum, quem praesento ut admittatur honoris causa ad gradum Doctoris in Scientia.

The official translation runs as follows:

In Homer Hector rebuked Polydamas, saying 'I care naught for birds', a rash remark overheard by Nemesis. But our guest has pursued ornithology with a success that matches his devotion. German-born and educated, while holding his first post at the Berlin Zoological Museum he was sent on expeditions to Papua and the Solomon Islands. He crossed the Atlantic to join the staff of the American Museum of Natural History in New York (1932-53) where he continued his researches. He moved to his present Chair at Harvard in 1953. His work on birds in the Pacific Islands led to the publication in 1942 of an important book in which he gave a fresh account of the origin of species. There followed a fruitful collaboration with the palaeontologist George Simpson and the geneticist Theodosius Dobzhansky, both of whom already hold Oxford honorary doctorates. Ovid told how sea, land and sky 'evolved' from Chaos: we in our turn admire Darwin and other eminent Victorians for explaining scientifically the wide application of evolutionary doctrine. It is however Professor Mayr's synthesis which at the present time holds the field. He is founder-editor of the journal *Evolution* and was President of the International Ornithological Congress in 1962. The Congress is now meeting again and in this country, and we take the opportunity of cordially welcoming this prince of bird-watchers, Ernst Walter Mayr, Agassiz Professor of Zoology at Harvard, whom I now present for admission to the Honorary Degree of D.Sc.

The ceremony was followed immediately by a Garden Party in Trinity College. After a veritable cloudburst at 1400 hours, the sky miraculously cleared

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and warm sunny weather put the pessimists to shame, and delighted the organizers and members who either knew or had heard of the fickleness of the English climate. Dancers from the Buckinghamshire District of the English Folk Dance and Song Society were a generally appreciated attraction and succeeded in drawing many members into joining them. The President announced the decisions reached by the International Ornithological Committee for the President and country of the next Congress in 1970, and Professor Mayr conveyed the thanks of the members to the Organizers of the Congress.

It is a pleasure to acknowledge the help of all those who contributed to the success of the Congress. We are particularly grateful to the Trustees of the Cecil Rhodes Trust for the use of Rhodes House; to the Heads and Fellows of those Colleges who kindly entertained groups of distinguished members at lunch; to the President and Fellows of Trinity College for hospitality for the Garden Party; to the Trustees of the Ashmolean Museum for the use of the Drapers' Gallery, and to the Assistant Keeper of the Department of Western Art, Mr Ian Lowe; to the Hon. Aylmer Tryon for his assistance in acquiring so many fine pictures and for printing the cover of the Catalogue; to the Directors of the Bear Lane Gallery; to the Heads of University Scientific Departments for permission to use lecture rooms; to the Wildfowl Trust and the Zoological Society of London for hospitality to the large numbers visiting the New Grounds and Whipsnade Zoological Park; to the British Trust for Ornithology and the Royal Society for the Protection of Birds for hospitality to members and, with the Scottish Ornithologists' Club and the Nature Conservancy, for exhibition material; to the Hon. Mrs Lane and Mr Christopher Marler for their generous hospitality to so many members of the Congress; to Shell Mex and B.P. Limited for calendars and the booklet *The Shell List of Birds*; to our hard working room stewards; and finally to those members who, by acting as College Representatives, did so much to make members feel at home in their temporary and in some respects unusual habitat.

As usual, the Permanent Executive Committee met twice, as did the International Ornithological Committee. It was decided that the XV International Ornithological Congress should be held in Holland in 1970 and Professor N. Tinbergen was elected as its President.

The various Committees for 1966-70 were constituted as follows.

THE PERMANENT EXECUTIVE COMMITTEE

Prof. F. Bernis

Prof. Finn Salomonsen

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Prof. Jean Dorst	Dr Dominic Serventy
Dr David Lack	Prof. Charles Sibley
Prof. Günther Niethammer	Marquess Yoshimaro Yamashina

INTERNATIONAL ORNITHOLOGICAL COMMITTEE

See p. 369.

STANDING COMMITTEE ON NOMENCLATURE

Mr Eugene Eisenmann, Secretary	Dr Charles Vaurie, Chairman
Prof. Jean Dorst	Prof. Karel H. Voous
Prof. Finn Salomonsen	

STANDING COMMITTEE FOR THE COORDINATION OF SEA-BIRD RESEARCH

Prof. V.C. Wynne-Edwards (U.K.), Chairman
Dr W.R.P. Bourne (U.K.), Secretary
Mr R.A. Falla (N.Z.)
Dr F. Goethe (Germany)
Mr C. Jouanin (France)
Dr N.H. Kuroda (Japan)
Prof. Karel H. Voous (Netherlands)
Dr G.E. Watson (U.S.A.)

Professor Finn Salomonsen was elected Representative to the International Committee for the Protection of Birds 1966-70.

N. Tinbergen



Midweek Excursion to the Wildfowl Trust, Slimbridge. Peter Scott (just right of centre) with members of the Congress.
(Eric Hosking)

Master and pupil.

(Eric Hosking)





Midweek Excursion to the Wildfowl Trust, Slimbridge. Dr G.V.T. Matthews gives Professor L. Portenko a specimen of *Branta sandvicensis*.
(Eric Hosking)



Ernst Mayr, Doctor Scientiae Honoris Causa, with the President.

(Gillman & Soame)



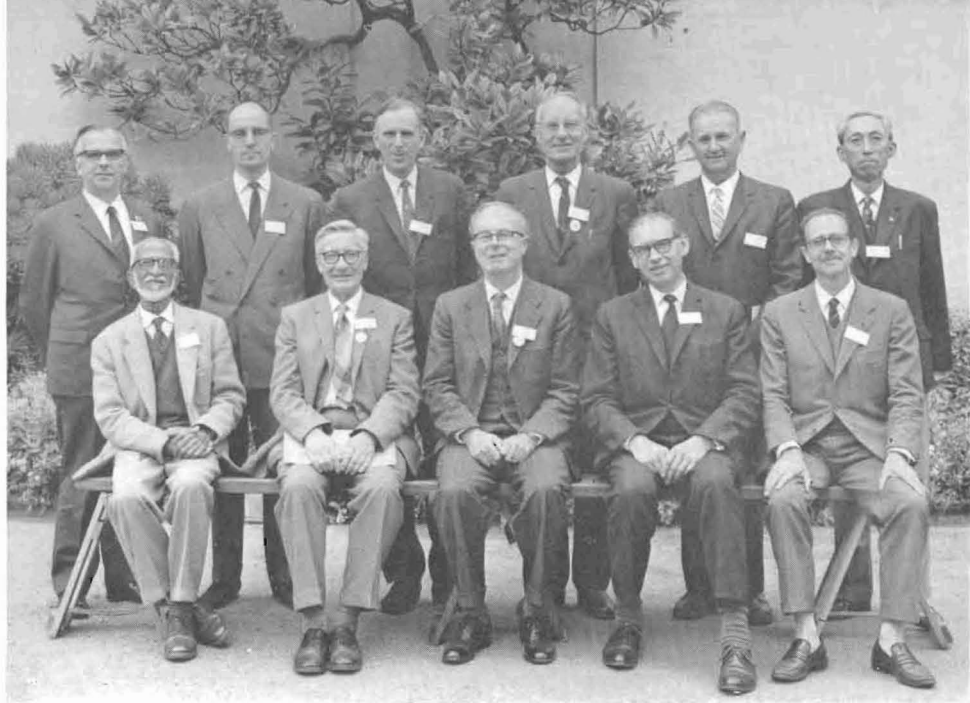
The Garden Party: Folk Dancers.

(Gillman & Soame)

Congress members joining in. Foreground left of centre: J. Dorst and Mrs A. Schifferli.

(Eric Hosking)





The Permanent Executive Committee

Standing from left to right: G.Niethammer, J.Dorst, L.von Haartman, W.H.Thorpe, C.G.Sibley, Y.Yamashuna.

Sitting from left to right: S.Ali, N.Tinbergen, D.Lack, E.Salomonsen, F.Bernis.

(Gillman & Soame)

Presidents

From left to right: D.Lack 1966, Sir Landsborough Thomson 1954, A.Wetmore 1950, J.Berlioz 1958, E.Mayr 1962, E.Stresemann 1934.

(Gillman & Soame)

