BIRD BIOLOGY SUBCOMMITTEE OF THE SCAR WORKING GROUP ON BIOLOGY

MINUTES OF MEETING, 9 -- 10 JUNE, SAN DIEGO, CALIFORNIA

PARTICIPANTS AND AGENDA

Professor W.R. Siegfried welcomed participants to the meeting, which marked the reconstitution of the Bird Biology Subcommittee. Apologies for non-attendance were received from D.G. Ainley, R. Bannasch, J. Cooper, G.L. Hunt Jr and R.P. Schlatter. The draft agenda was adopted and seven papers were tabled.

MEMBERSHIP OF SUBCOMMITTEE

The following were proposed as members of the new Subcommittee: D.G. Ainley(*), R. Bannasch(*), J. Cooper(*), J.P. Croxall(*), P.C. Harper(*), G.L. Hunt Jr(*), S. Hunter, G.W. Johnstone(*), P. Jouventin(*), A. Myrcha, P.A. Prince(*), M. Sallaberry(*), M. Sander, R.P. Schlatter, W.R. Siegfried(*) and W.Z. Trivelpiece. Dr J.P. Croxall and Mr J. Cooper were nominated as Chairman and Secretary, respectively, to take effect on the conclusion of the present meeting. Dr Croxall undertook to act as Secretary and Professor Siegfried as Chairman at this meeting. Both were warmly thanked for all their efforts on behalf of the BIOMASS Working Party on Bird Ecology over the last eight years.

TERMS OF REFERENCE

The Scientific Committee on Antarctic Research (SCAR) Working Group on Biology had proposed the following terms of reference for the Bird Biology Subcommittee: "to initiate, encourage and coordinate internationally cooperative scientific research dealing with the biology of Antarctic and sub-Antarctic species throughout their range." No amendments to this were suggested.

CURRENT STATUS OF WORK RELATING TO THE INTERNATIONAL SURVEY OF ANTARCTIC SEABIRDS (ISAS)

The last review of this was in 1984 (BIOMASS Rpt Ser. 41:18-22). Participants described their recent, current and prospective survey and monitoring activities and these are summarized in Tables 1 and 2. The latter table updates the last (1982) review of monitoring studies (BIOMASS Rpt Ser. 27:17).

(*) Membership approved by the SCAR Working Group on Biology (SCAR Report No. 2 p. 5)

TABLE 1

RECENT, CURRENT AND PROSPECTIVE (MARKED AS *) SURVEY OPERATIONS COUNTING BREEDING ANTARCTIC SEABIRD POPULATIONS

Area/Site	Species	Date	Method	Comments	Reference
			AUSTRALIA		
Davis, Mawson (incl. Prydz Bay)	Adélie Penguin	1981/82	Vertical aerial photos	Processing nearly complete; comparison with 1956 photos	
Wilkes vicinity	Adélie Penguin	1983/84	Ground counts	Comparison with 1958-60 counts	
Commonwealth Bay	Adélie Penguin	1982/83	Ground counts		
*Scullin & Murray Monoliths	Adélie Penguin	?1987/88			
*Casey region	Adélie Penguin	?1987/88			
Amanda Bay	Emperor Penguin	1983	Ground count	First count of colony	Cracknell et al. (submitted Emu)
Rauer Island	Antarctic, Pintado Petrels, Antarctic Fulmar	1981/85	Ground counts		Green & Johnstone (1986) (ANARE Res. Notes)
*Scullin Monolith	Antarctic Petrel	1986/88	Ground		
Macquarie Island	Royal, King Penguins	1982/83	Counts from photos		Rounsevell & Brothers (1985)
	Imperial Cormorant	1976	Ground counts		Brothers (1985)
	Albatrosses & giant petrels	1970 & 1980	Ground counts		(TNPWS & Ant. Div. unpul.)
	Gentoo Penguin	1984/85	Ground counts		Robertson Aust. Wild. Res. in press
Heard Island	King	1980's	Ground		

	Penguin, Imperial Cormorant		counts		
			BRAZIL		
King George Island (Keller Pen.)	all species	1983/84	Ground counts	Continuing programme	
Elephant Is. Group	all species	1985/86	Ground counts	Continuing programme	
			CHILE		
S. Shetland Islands	penguins	1982/83	Aerial		Sallaberry & Schlatter (1983), Valencia & Sallaberry (1983), Torres et al. (1982)
	giant petrels	1986	Ground counts		Roby et al. (in press)
	Wilson's Storm petrel				
Diego Ramirez	all seabird species	1983	Ground counts		Schlatter (submitted)
Isla Noir	Macaroni Penguin	1983	Ground counts		Venegas (in press)
			FRANCE		
Adélie Land Pointe Geologie	all species	1980's	Ground counts		Oiseau (in press)
Rest of coast	all species	Current	Ground counts		
Kerguelen: Courbet Peninsula	all surface breeding species	1980-85	Ground counts		Oiseau (in press)
*Rest of coast	all surface breeding species	Current	Ground counts	Proposed major programme in 1987	
Crozet Islands	mainly surface	1980's	Ground counts	Main programme completed	

	breeding species		aerial photos		
Amsterdam and St. Paul Islands	albatrosses	1980's	Ground counts		Published
	*other species	Current	Ground counts		Roux & Martinez. (1986) (Cormorant 14)
			JAPAN		
Continent 35oE-50oE	Adélie & Emperor Penguins	1980's	Ground and photo counts		
			NEW ZEALAND		
Western Ross Sea	Adélie Penguin	1983-85	Aerial vertical photos, ground counts		
*Eastern Ross Sea	Adélie & Emperor Penguins	?	Aerial photos	Awaiting support	
*Balleny Islands	all species		Ground counts	Awaiting support	
			POLAND		
S. Shetland Islands (King George I.)	penguins	1982-83	Aerial photos, ground counts		Jablonski (1984)
			SOUTH AFRICA		
Marion & Prince Edward Islands	penguins, albatrosses, giant petrels, gull, skua, terns, cormorant	1980's	Ground counts, photos		Watkins (S. Afr. J. Antarct. Res. in press) Adams (Polar Biol. in press) Ryan & Hunter (1985) & Fitz-Patrick Institute Unpubl.
Gough Island	Wandering Albatross, Rockhopper Penguin	1980's	Ground counts		Watkins (S. Afr. J. Antarct. Res. in press)

		UNITED KINGDOM		
S. Orkney Islands	penguins	1983-84	Ground counts	Poncet & Poncet (1985)
NE Antarctic Peninsula	penguins	1982-83	Vertical aerial photos	
Antarctic Peninsula (rest)	penguins, cormorants	1983-86	Ground counts	Poncet & Poncet (MS)
Antarctic Peninsula	all species		Review of all published & unpublished data	Due 1988
South Georgia: Willis Island NW Area	albatrosses, penguin	1985-86	Ground & photo counts; vertical and oblique aerial photography	
*Rest	all surface breeding species	1986-87	Ground & photo counts	
	burrowing species	1987-88	Quadrats, etc.	
*S. Sandwich Islands	penguins	1987-88?	Vertical aerial photos	
	petrels	1988-89?	Ground & photo counts	
		USA		
*Antarctic Continent	penguins	1987-88?	Satellite imagery	
		1989-90	Aerial photography Ground counts	
S. Shetland Islands	penguins	1986-87	Ground counts	

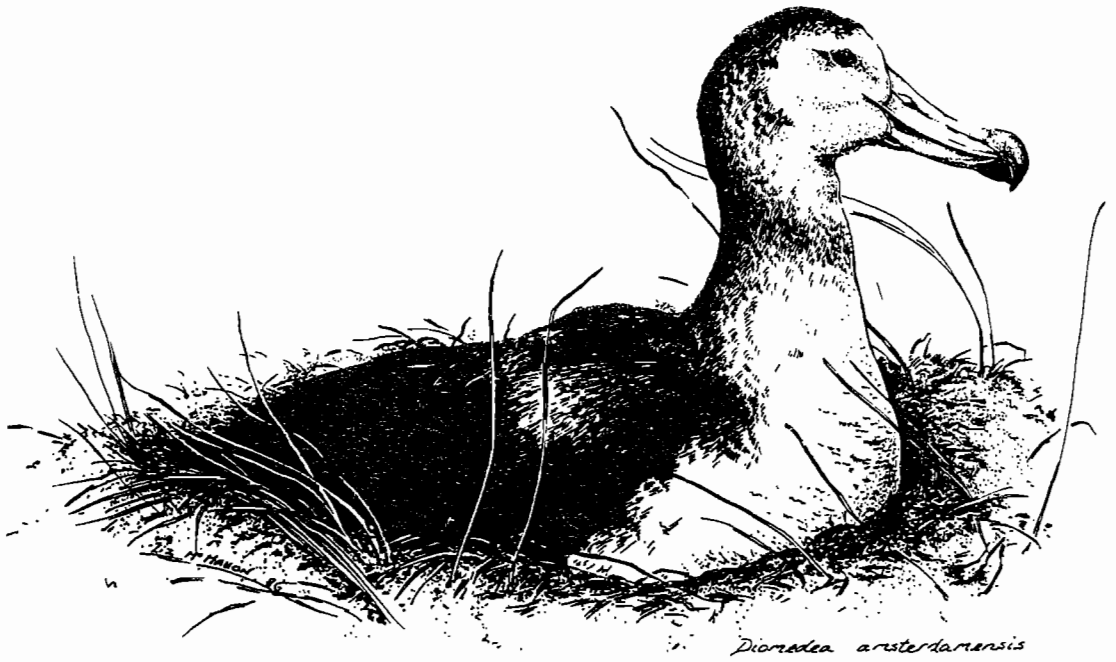
TABLE 2

CURRENT STATUS OF ANTARCTIC SEABIRD MONITORING STUDIES

Species	Site	Nation	Start	Frequency	Counts		Method		Breeding Success
					Incubation	Rearing	Colony	Sample	
Emperor Penguin	Kloa	AUS	1957	annual	X	X		X	
	Fold Is	AUS	1956	annual	X	X		X	
	Taylor Gl	AUS	1954	annual	X	X		X	
	Auster	AUS	1957	annual	X	X		X	
	Pte Geologie	FR	1952	annual		X	X		X
King Penguin	Heard I	AUS	1962	c.5 y		X	X		
	Possession I	FR	1980	5 y	X			X (photo)	
	Baie du Marin	FR	1980	annual	X		X		X
	Marion I	SA	c.1984	annual	X	X	X		X
	Prince Edward I	SA	1982	c.5 y		X	X		
Adélie Penguin	Commonwealth Bay	AUS	c.1982	c.3 y	X		X		
	Davis	AUS	1960	annual	X			X	X
	Casey	AUS	1961	c.2-3y	X		X		
	Ardley I	CHI	1981	annual	X		X		some
	Pte Geologie	FR	1983	3 y	X		X		
	Syowa	JAP	1970	annual	X		X		
	W. Ross Sea	NZ	various	1-2 y	X	X			
	Cape Bird	NZ	1968	annual	X		X		X
	Cape Royd	NZ	c.1970	annual	X		X		X
	Cape Crozier	NZ		1-2 y	X		X		
	Palmer area	US	c.1974	annual	X		X		some
	Pt Thomas	US/POL	1977	annual	X		X		X
	Signy I	UK	1978	annual	X		X		X
Chinstrap Penguin	Elephant I	BRA	1985	annual?	X		X		?
	Ardley I	CHI	1981	annual	X		X		some
	Pt Thomas	US/POL	1977	annual	X		X		X
	Signy I	UK	1978	annual	X		X		X
Gentoo Penguin	Ardley I	CHI	1981	annual	X		X		some
	Possession I	FR	1978	annual	X		X		
	Pt Thomas	US/POL	1977	annual	X		X		X
	Signy I	UK	1978	annual	X		X		X
	Bird I	UK	1976	annual	X		X		X
Macaroni Penguin	Isla Noir	CHI	1983	c.3 y	X	X			
	Possession I	FR	1980	5 y	X			X (photo)	
	Marion I	SA	1980	annual	X	X	X		X
	Bird I	UK	1976	annual	X		X		X
Rockhopper Penguin	Possession I	FR	1980	5 y			X	X	
	Campbell I	NZ	1984	annual	X	X	X		X
	Gough I	SA	1982	annual	X		X		
	Marion	SA	1984	annual	X	X	X		X
Wandering Albatross	Macquarie I	AUS	1950	annual	X		X		X
	Possession I	FR	1966	annual	X		X		
	Kerguelen	FR	1984	annual	X	X	X		X
	Prince Edward	SA	1979	c.5 y		X	X		

	Marion I	SA	1980	annual	X	X	X		X
	Gough I	SA	1979	annual		X	X		some
	Bird I	UK	1975	annual	X		X		X
Royal Albatross	Taiaroa Hd	NZ	1938	annual	X	X	X		X
Amsterdam Albatross	Amsterdam I	FR	1983	annual	X	X	X		X
Blackbrowed Albatross	Macquarie I	AUS	1974	annual	X		X		X
	Kerguelen	FR	1980	annual	X	X		X	X
	Bird I	UK	1975	annual	X	X	X		X
Greyheaded Albatross	Macquarie I	AUS	1974	annual	X		X		X
	Marion	SA	1984	annual		X	X		
	Bird I	UK	1975	annual	X	X	X		X
Yellownosed Albatross	Amsterdam I	FR	1980	annual	X	X		X	X
	Gough I	SA	1982	annual	X	X	X		X
	Tristan I	SA	1984	annual	X	X	X		X
	Nightingale I	SA	1984	1-2 y	X		X		
Sooty Albatross	Possession I	FR	1980	annual	X	X		X	X
	Gough I	SA	1982	annual	X	X	X		X
Lightmantled Albatross	Macquarie I	AUS	1970	annual	X			X	X
	Possession I	FR	1980	annual	X	X		X	X
Southern Giant Petrel	Casey	AUS	1960's	annual		X	X		
	Davis	AUS	1960's	annual		X	X		
	Elephant I	BRA	1985	annual?	X		X		?
	Ardley I	CHI	1986	annual	X		X		
	Pte Geologie	FR	1951	annual	X		X		X
	Possession I	FR	1980	5 y	X		X		
	Pt Thomas	US	1980	annual	X	X		X	X
	Bird I	UK	1978	5 y	X		X		
Northern Giant Petrel	Kerguelen	FR	1984	5 y	X		X		
	Possession I	FR	1980	5 y	X		X		
	Bird I	UK	1978	5 y	X		X		
Antarctic Fulmar	Rauer Is	AUS	1983	annual	X	X		X	X
	Pte Geologie	FR	1952	annual	X	X	X		X
Snow Petrel	Pte Geologie	FR	1963	annual	X	X	X		X
	Signy I	UK	1976	annual	X	X	X		X
Pintado Petrel	Pte Geologie	FR	1964	annual	X	X	X		X
	Signy I	UK	1976	annual	X	X	X		X
Antarctic Petrel	Rauer Is	AUS	1983	annual	X	X		X	X
	Scullin	AUS	1984	2 y	X	X		X	X
Wilson's Stormpetrel	Ardley I	CHI	1986	annual	X	X	X		X
	Pte Geologie	FR	1962	annual	X	X	X		X
South Polar Skua	Pte Geologie	FR	1968	annual	X	X	X		X
	Palmer	US	1970's	periodic	X	X	X		X
	Pt Thomas	US	1980	annual	X	X		X	X

Subantarctic	Possession I	FR	1980	5 y	X	X	X		X
Skua	Chatham I	NZ	1980's	annual	X	X	X		X
	Gough I	SA	1983	annual	X			X	
	Pt Thomas	US	1980	annual	X	X	X	X	X
	Bird I	UK	1976	5 y	X		X		



The coverage reported in Table 1, nearly all of which had been a direct or indirect result of ISAS, represented a very substantial achievement. Nevertheless, the details in Table 1 are incomplete, lacking any input on behalf of the activities of Argentina, Federal Republic of Germany, German Democratic Republic and Norway. It was agreed that the SCAR Working Group on Biology should be asked to arrange to provide the Chairman of the Bird Biology Subcommittee with details of relevant national programmes as soon as possible. When this information is incorporated, Table 1 will, in effect, form a very brief synopsis of ISAS. It was decided, however, that a more detailed report on ISAS work, leading to a new synthesis of data on the distribution and abundance of Antarctic penguins (i.e. replacing Wilson 1983, BIOMASS Sci. Ser. 4:1-46) would have to be deferred until the results are available from the major surveys reported in Table 1. Project leaders and those responsible for the collection of these data were, therefore, strongly urged to publish survey data, in as detailed a form as possible, and as soon as practicable.

The Subcommittee emphasized the importance of carrying out the proposed surveys (marked * in Table 1) as soon as possible. Areas with important penguin populations for which no surveys have been conducted or are proposed include Enderby Land and the Haswell Island region. Attempts should be made to obtain ground counts for these areas. Assessment of world populations of Gentoo and Rockhopper Penguins will be impossible until the size of the Falkland Island populations of these species is known. Surveys there of these species were strongly recommended.

The review of monitoring studies (Table 2) revealed a substantial increase in activity and in frequency of operations since 1982. The listing, however, is known to be incomplete, lacking input from Argentina, Federal Republic of Germany, German Democratic Republic and perhaps Norway. The SCAR Working Group on Biology was asked to make arrangements for providing the Chairman of the Bird Biology Subcommittee with appropriate details as soon as possible.

The Subcommittee agreed that, with the expansion of monitoring operations, it was important to try to ensure some standardization of field methods and presentation of results. Concern was also expressed over the safe archiving of data. It was recommended, therefore, that the Working Group on Biology request each group involved in monitoring studies to provide the Secretary of the Bird Biology Subcommittee with a synopsis of all available data (up to and including the 1986/87 season) for the species and sites listed in Table 2 by 31 December 1987. Suggestions for the format and exact nature of the information required would be circulated by the Secretary as soon as possible.

CENTRAL DATA BANK (CDB) FOR ANTARCTIC BIRD-BANDING

A report has been prepared by Mr T.B. Oatley, South African Bird Ringing Unit (SAFRING) and he and the Percy FitzPatrick Institute, University of Cape Town were thanked for their

continuing efforts in maintaining the CDB (see Oatley & Cooper 1985, Cormorant 13:35-42). The Subcommittee recommended that the operation of the CDB be continued. It welcomed the provision of the Brazil, German Democratic Republic and New Zealand (summaries only) data but noted with regret that, despite numerous requests, no data had yet been made available by Argentina. The SCAR Working Group on Biology was asked to take this matter up with the appropriate national representative.

COLOUR-BANDING INVENTORY

The first inventory was published in 1985 (Cooper & Oatley, Cormorant 13:43-54) and had been widely circulated. The importance of keeping this register up to date was noted and Subcommittee members were urged to give early notice of the initiation of new colour-banding programmes. The members of the Subcommittee were also requested to publicize as widely as possible the existence of this register.

In view of the increasing interest in colour-banding projects it would be very useful if more information on potential suppliers and costs were available. Dr Hunter, in consultation with Dr Sallaberry, agreed to prepare a synopsis of this.

COMPILATION OF MASS DATA ON ANTARCTIC SEABIRDS

Since this topic was reviewed in 1984 (BIOMASS Rpt Ser. 41:9-11) no progress had been made in preparing listings of the data currently archived.

Mr F.S. Todd enquired whether there was an interest in making available to the Antarctic seabird research community data on egg size and growth rates of penguins and other seabirds which had been acquired during the rearing of these species by Sea World. He was asked to provide a synopsis of the data (species, sample size, etc.) and a complete set of the available information for one species. The Subcommittee reviewed these data and advised as follows:

1. Data on egg measurements, fresh egg masses and chick masses at hatching were of considerable interest. They should be presented, essentially as already tabulated (species, site, sample size, mean, range, standard deviation), in comparison with similar data from field studies, in a short paper that could be published in any one of a number of seabird or Antarctic research journals.

2. The existence of chick growth data (Table 3) should be widely publicized. The most effective way of doing this would be to compare the Sea World growth data with data available from field studies.

   The intrinsic interest of comparisons of chick growth from the a and b eggs of Rockhopper Penguins and of comparisons of growth patterns of chicks from different geographical

TABLE 3

SEA WORLD SUB-ANTARCTIC AND ANTARCTIC SEABIRD GROWTH DATA

Species	Year collected	Geographic Location	Sample Size (Initial)
Chinstrap Penguin	1983-84	Nelson Island	112
Gentop Penguin	1983-84	Nelson Island	80
Gentoo Penguin	1985-86	Falkland Islands	24
Macaroni Penguin	1984-85	Isla Noir	132
Rockhopper Penguin	1984-85	Isla Noir*	96
Rockhopper Penguin	1985-86	Falkland Islands	42
Magellanic Penguin	1984-85	Isla Magdalena	90
Southern Giant Petrel	1983-84	Nelson Island	16
Imperial Cormorant	1983-84	Nelson Island	16
Imperial Cormorant	1984-95	Isla Marta	14
Subantarctic Skua	1983-84	Nelson Island	6
Kelp Gull	1983-84	Nelson Island	12
Kelp Gull	1983-84	Isla Magdalena	9
Antarctic Tern	1983-84	Nelson Island	24

*Includes data on small (A) and large (B) eggs separately as well as collectively.

areas was also recognized.

The Subcommittee noted that the data and work on seabirds at Sea World offered numerous other research opportunities and thanked Mr Todd and Mr W.S. Drieschman for making this more widely known.

BIBLIOGRAPHIES OF ANTARCTIC SEABIRDS

1. Penguins

The Subcommittee thanked the authors, and especially the Percy FitzPatrick Institute, for undertaking this so successfully and the British Antarctic Survey for its help in the final production of the volume (see Wilson 1986, Cormorant 13:194 for review).

It was agreed that it was desirable to prepare regular updates of this bibliography. The literature searches required to make this fully comprehensive were judged to be prohibitive in terms of the time and effort required. It was decided that the most practical measure would be for the libraries of the Percy FitzPatrick Institute and British Antarctic Survey to produce annually a list of all reprints on penguins accessed during the previous year. This would then be circulated to all members of the Subcommittee and to the main groups working on penguins, inviting notice of additional publications. The resulting list, with the appropriate content reference numbers, would be published in Cormorant.

2. Albatrosses

It was understood that Dr J. Warham had made substantial progress towards his bibliography of the Procellariiformes, intended to complement his forthcoming two-volume work on the biology and ecology of the family. Because the topic of seabird bibliographies was to be discussed at the International Council for Bird Preservation World Conference in June 1986, it was agreed to defer further consideration of appropriate action on the bibliography of albatrosses that had been started by Dr A.J. Williams and Dr W.L.N. Tickell until after this meeting. Members of the Subcommittee attending the ICBP conference were asked to obtain full details on the status and format of the Warham bibliography. Dr S. Hunter was asked to inform the ICBP meeting of the progress on the Williams/Tickell bibliography. The Subcommittee affirmed the desirability of having the bibliography available in book form and as a computer file or magnetic tape.

INTERNATIONAL GIANT PETREL DISPERSAL PROJECT

The meeting received the synopsis of the present status of the project. After considerable discussion, the main points to emerge were:

1. Prospects of obtaining really novel data on giant petrel dispersal depend on the ability: (a) to band Northern Giant Petrels at the Chatham Islands and other sites in New

Zealand (where one third of the world population breeds); and, (b) to band both species at sites where such work has not previously been done - especially South America and the Falkland Islands.

2. Even without this, however, there was much to be gained in undertaking a multi-national collaborative exercise. There was intrinsic merit in a short-term intensive investigation of giant petrel dispersal (even if mainly from sites where banding is currently in progress). Also, the organizational experience gained and contacts made would be very useful for collaborative operations in the future.

3. Concern was expressed over the extra costs imposed by using colour bands. The only advantage of these is that they are likely to increase significantly the sightings of banded birds (perhaps doubling the recovery rate of 2 % for metal-banded birds).

The following recommendations were made:

1 That the project be approved by the SCAR Working Group on Biology.

2. That funds be sought to provide for the costs of travel to banding sites and for the purchase of bands (especially colour bands), with priority for operations in South America.

3. That the SCAR Working Group on Biology ask its New Zealand member to help to obtain approval from the Banding Office of the New Zealand Wildlife Department for banding giant petrels at the Chatham Islands and other sites.

4. That researchers with recovery data from giant petrel banding operations endeavour to publish these before the inception of the project, so that its results may ultimately be compared with the best available background data. Researchers with relevant data that they will be unable to publish are asked to consider making these available to the project organizer.

5. The project should continue to be organized by Dr Hunter, assisted by Mr Cooper.

SATELLITE REMOTE-SENSING OF PENGUIN COLONIES

The pilot study proposed had eventually been funded in October 1985. Use of the Landsat Thematic Mapper (Band 3) had allowed spectral identification of Adélie Penguin colonies (probably based on the deposit of guano). Professor W.S. Benninghoff circulated Landsat and conventional aerial photographs of the Cape Crozier colonies. While these results were most encouraging, some potential problems remained in distinguishing penguin colonies from other features. However, laboratory work is in progress to enhance the Thematic Mapper photographs, by utilizing the data collected at Ross Island during fieldwork in January - February 1986 on spectral characteristics of birds and of a variety of substrata. Professor Benninghoff thanked New Zealand scientists for their assistance in this work.

Another problem concerns the prevalence of cloud cover in the region. This results in rather few usable images being acquired, particularly as there is at present no "ground control" over the conditions under which the Landsat Thematic Mapper is switched on. There is also concern that "signatures" indicating penguin colonies may be obtained for areas where there are old guano deposits but no penguins. It is hoped to investigate this using the extensive Polish data on the topic from King George Island, in conjunction with the appropriate Thematic Mapper images.

However, notwithstanding these problems, such is the promise shown by the pilot study that a more extensive proposal (in collaboration with Drs Ainley and Trivelpiece) has been prepared. This requests funding for a three-year study whose main aims are:

1. To use Landsat imagery to compile an atlas of potential Adélie Penguin nesting sites for the whole coastline of Antarctica.

2. To develop a statistically sound estimate of relationships between colony area and penguin numbers.

3. To use these data to test various recent hypotheses concerning inter-relationships between the size, location and topography of seabird colonies.

The Subcommittee thanked Professor Benninghoff for his presentation at the meeting and especially for his unfailing help and persistence in initiating the whole project. Prospects now look very encouraging, and the Subcommittee reaffirmed its view that only by using and developing such technology are we likely to acquire realistic information on the distribution and abundance of penguins in the remoter regions of Antarctica.

BIOMASS-RELATED ACTIVITIES

1. Computerization of data on location and size of penguin breeding colonies.

   The objectives of the operation were set out in BIOMASS Rpt Ser. 41:2. Advice had been sought from the BIOMASS Data Centre via its Systems Advisory Group. No reply had yet been received and Dr Croxall was asked to re-investigate the matter.

2. Handbook on identification of fish remains in predator's stomachs.

   The otolith atlas by Dr T. Hecht was now complete and will be published soon as a monograph in the South African Journal of Antarctic Research. There appears to have been no progress on identification of skeletal structures. However, a paper on the osteology of the Channichthyidae (Iwami 1985, Mem. Nat. Inst. Polar Res. Ser. E. 36:1-69) was of considerable relevance. Dr C. Anderson, who recently revised the taxonomy of the Nototheniidae, is preparing similar information for this family.

3. Seabird at-sea activities: FIBEX and SIBEX

The Subcommittee welcomed the appearance of the report (BIOMASS Rpt Ser. 44) on the FIBEX Data Interpretation Workshop, held at Cape Town in April 1985. Particular scrutiny was given to the conclusions and recommendations section. The attention of members of the Subcommittee and of all research groups making systematic records of Antarctic seabirds at sea were drawn to the following points.

a) If it is intended to collect data on seabirds at sea with a view to quantitative analyses involving estimates of density, it is essential to follow the methods set out in the instructions for SIBEX and to take note of the comments on pp 29-31 of BIOMASS Rpt Ser. 44.

b) It was noted that little, if any, purpose would be served by further analysis of the FIBEX seabird data.

c) It was agreed that the planning of a workshop to analyse the SIBEX data should proceed. The Bird Biology Subcommittee is likely to play an important role in co-ordinating and arranging this. It was noted that the key preliminary steps were (i) the preparation of a detailed summary of the seabird data sets by the BIOMASS Data Centre Manager and (ii) the evaluation of this by the Subcommittee. The nature and timing of any Workshop could not be determined until this had been done. As neither of these could take place until SIBEX data were received by the Data Centre, all participants were urged to ensure that their SIBEX seabird data reach the Centre as soon as possible.

4. Final Report of BIOMASS Working Party on Bird Ecology (WPBE).

Professor Siegfried was thanked for preparing this brief but comprehensive report on the achievements of the Working Party.

CCAMLR-RELATED ACTIVITIES

Dr K. Kerry reviewed the background to the involvement of the now defunct BIOMASS Working Party on Bird Ecology in CCAMLR affairs and in particular in the work of the ad hoc Working Party on Ecosystem Monitoring. There was considerable discussion about those documents and participants were invited to submit comments, particularly on the selection of species and sites for monitoring, to Dr Kerry, the Convenor of the CCAMLR Working Group on Ecosystem Monitoring, in time for consideration at its meeting in Hamburg, 2-7 July 1986.

There was much comment on the use (and desirability of use) of automated recording devices. Dr Johnstone suggested that it would be very useful to review the variety of techniques and equipment currently in use. It was agreed to consider this under the next agenda item.

NEW PROJECTS

1. Inventory of automatic recording devices.

Information on the nature, operation and effectiveness of a variety of devices is required. These can be provisionally grouped under five headings:

a) weighing devices
b) individual recognition systems
c) foraging and other at-sea activity recorders
d) satellite transmission devices
e) other devices

An adequate inventory would depend on contacting appropriate specialists working on or using such equipment. It was noted that the Handbook on Seal Research Methods being prepared by the SCAR Group of Specialists on Seals will contain a chapter on "Telemetry and electronic technology". Dr Croxall, a member of the Group of Specialists, was asked to liaise appropriately on behalf of the Subcommittee. He also agreed to contact researchers within and without the Subcommittee to request details of equipment and techniques of which they have especially relevant experience and to collate their responses.

2. Antarctic Petrel collaborative study

Drs Harper and Johnstone expressed an interest in a study of the distribution and movements of Antarctic Petrels. They were asked to prepare a draft proposal and to circulate it to members in time for discussion at the next meeting of the Subcommittee.

ANY OTHER BUSINESS

1. Publication lists

In BIOMASS Rpt Ser. 41:25, research groups were asked to provide lists of recent publications on Antarctic seabirds in order to promote exchange of information on recent and current research programmes. Lists were received only from France, South Africa and the UK. With the increasing number of nations undertaking Antarctic seabird research, exchange of information of this kind is particularly relevant.

Accordingly, the Subcommittee proposed that the SCAR Working Party on Biology request the scientists in charge of national seabird research programmes to provide the Secretary of the Subcommittee with a list of all publications on Antarctic and sub-Antarctic seabird species from 1984 onwards, including those currently in press. These would be collated and the resulting list circulated to all members of the Subcommittee and of the Working Group on Biology.

2. Date and place of next meeting

With the re-formation of the Bird Biology Subcommittee, the considerable volume of business involved and the number of projects and undertakings that are underway at present, it was considered essential to meet not later than 1988. a meeting in that year would be most conveniently held in conjunction with XX SCAR and the SCAR Biology Symposium (Hobart, Australia, late August-early September 1988).

It was noted that New Zealand ornithologists were proposing to convene a symposium on penguin ecology. This proposal was strongly supported by the Subcommittee and it was suggested that it should be held at a time that would facilitate attendance by participants at the above meetings.

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COLOUR - DYED COMMON TERNS

Sixty Common Terns *Sterna hirundo* were dyed yellow with picric acid on their necks and underparts at Bettys Bay, Cape Province, South Africa in January 1987. If any of these terns are sighted elsewhere in southern Africa or farther afield, observers should report the locality and date to me. Sightings of dyed terns in the vicinity of Bettys Bay have been reported in Underhill & Hofmeyr (in press, Safring News 16(1)). It is planned to dye terns again in the 1987/88 austral summer.

L.G. Underhill, Department of Mathematical Statistics, University of Cape Town, Rondebosch 7700, South Africa.

COLONIAL WATERBIRD GROUP

The 11th Annual Meeting of the Colonial Waterbird Society will be held at the Red Oak Inn in Thunder Bay, Ontario, Canada during 10-13 September 1987. Lynn Hauta and John P. Ryder are in charge of local arrangements. Announcements of the schedule and call for papers will be mailed to members at a later date.

J.P. Ryder, Dept. Biology, Lakehead University, Thunder Bay, Ontario, Canada P7B 5E1.

Whitebreasted Cormorant

Liz McMahon 1986

SUMMARY OF EVENTS OF THE SEABIRD SPECIALIST GROUP MEETING ,

KINGSTON, ONTARIO, CANADA, 20 -- 21 JUNE 1986

The Seabird Specialist Group (SSG) of the International Council for Bird Preservation (ICBP) met for two days in June 1986 as part of the ICBP XIXth World Conference in Kingston, Ontario, Canada. The meeting was attended by 48 people from 19 countries.

The general tone of the meeting was that research and conservation cannot be separated, with the major purpose of the SSG being to pursue the following aims:

1. identify and highlight local and more widespread seabird conservation issues.

2. provide specialist advice on these issues to the ICBP directorate, and

3. promote action on these issues.

We solicit comments of a general and specific nature on

a. which species and localities should be highlighted, and

b. how can we serve the conservation community in finding solutions to the problems of preserving seabird populations.

We have two existing programmes underway:

1. A supplement to the ICBP Technical Bulletin No. 2 Status and conservation of the World's seabirds. Dr J.P. Croxall will compile and edit this volume. It will include treatments of areas not covered in the original volume and more detailed accounts of areas covered only in general terms in that volume. We hope to include accounts for at least Argentina, Brazil, British Columbia, Canada (mainly inland regions), Fiji, India, Malaya, the Marianas, Nicaragua, and Thailand. A copy deadline of 31 December 1988 was established with publication date in late 1989. We solicit comments and suggestions on areas to cover and authors to write accounts.

2. We are now publishing and distributing a newsletter of seabird activities in Spanish to Latin American regions. Drs D.C. Duffy and M.C. Coulter are organizing and producing this newsletter and would appreciate any and all suggestions.

We proposed two workshops/symposia for the XXth ICBP World Conference in 1990 in New Zealand. Both will result in ICBP Technical Bulletin publications.

1. Rare and endangered seabirds species: a global view. A synthesis of all relevant historical, biological, and conservation data. We envision a species account format. The coordinating committee at present is Dr N.J. Collar, Dr

J.P. Croxall, Ms P. McGill-Harelstad, and Mr C.J.R. Robertson. We solicit your suggestions and ideas (see Croxall 1987, Cormorant 14:83).

2. Conservation of seabirds on islands: theoretical considerations and pragmatic solutions. The coordinating committee at present in Mr B.D. Bell, Dr J. Burger, Dr D.J. Reville, and Mr D. Wingate. We also solicit your suggestions for this important topic.

We envisage a one-day symposium and one-day workshop for each topic.

We developed three other initiatives:

1. A review of marine pollution, the threats and issues. Dr I.C.T. Nisbet is chairing the ad hoc group to consider this important topic.

2. A review of the "incidental take" of seabirds by gill net and other fishing activities. Dr W.B. King is organizing our position and formulating plans for further action on this issue.

3. Bibliographies. The SSG decided that while it did not desire to take any specific action as regards bibliographies, it regards them as important and useful. The SSG encourage persons to make their data available. Known persons or organizations involved at present are: Greg Butcher, Malcolm Coulter, Roger Clapp, John Cooper, Tony Gaston, Ian Nisbet, John Warham and the British Antarctic Survey. Anyone interested in further information or who is actively working on bibliographies is encouraged to contact Ralph Schreiber who will provide further information on specific projects.

The SSG decided that the best organizational make up for the SSG would be to have regional representatives who would be willing to provide information of a conservation nature for general and specific issues. These reports to the chairman on a periodic basis would be prepared into a statement for distribution to the existing seabird group bulletins/journals for publication, and to the ICBP magazine World Bird Watch. We solicit comments and suggestions from persons willing and able to provide such information.

At present we have an Advisory Group composed of Mr B.D. Bell, J.P. Croxall, Ms P. McGill-Harelstad, and Dr A. Sprunt, who will assist the Chairman in devising policy and developing actions.

We actively solicit your opinions and desires regarding the activities of the Seabird Specialist Group of the ICBP.

30 August 1986

R.W. Schreiber, Chairman, ICBP Seabird Specialist Group, Natural History Museum, 900 Exposition Boulevard, Los Angeles, California 90007, U.S.A.

ICBP XXTH WORLD CONFERENCE, NEW ZEALAND, 1990)

THREATENED SEABIRD SPECIES: A GLOBAL REVIEW

At the recent meeting of the ICBP Seabird Specialist Group (SSG) at Kingston, Ontario, Canada in June 1986 (see Schreiber 1987, Cormorant 14:81-82), there was strong support for holding a symposium and workshop, associated with the 1990 ICBP XXth World Conference in New Zealand, on the above theme. It should be noted that this initiative would supersede an earlier idea of the SSG, to prepare a Handbook of the seabirds of the World.

We have been encouraged to proceed on the above theme by the ICBP Secretariat and I agreed to draft and circulate this first preliminary announcement on behalf of a planning group initially comprising Dr N.J. Collar, Ms P. McGill-Harelstad, Mr C.J.R. Robertson and myself.

A major objective of the symposium and workshop would be to assemble comprehensive accounts of the biology and ecology of all seabird species that could be regarded as threatened, with particular reference to:

Their conservation - by detailing the threats they face

The acquisition of fresh data with which to assess their actual status

Such a volume might have the following uses:

a. bringing together all that is known about the rarer species

b. identifying gaps in knowledge and promoting efforts to remedy these

c. summarizing the threats facing threatened species

d. recommending and promoting appropriate action to remedy these

At present it is envisaged that a one-day symposium would focus attention on certain species, selected as case histories to illustrate both the gaps in our knowledge of the rarer species and the range of threats confronting a selection of the threatened ones. The workshop (1-1 1/2 days) might then undertake

(a) to review the prepared species accounts (all of which would have been circulated to participants prior to the meeting)

(b) to prepare a synthesis of the key findings in a way that would have maximum impact and effect

(c) to prepare co-ordinated recommendations for priority action

October 1986

J.P. Croxall, British Antarctic Survey, Madingly Road, Cambridge CB3 OET, U.K.

SEABIRD BIBLIOGRAPHY QUESTIONNAIRE

At the International Council for Bird Preservation Seabird Spealist Group meeting in Kingston, Ontario, Canada (Cormorant 14: 81-82) the Seabird Bibliography Committee was established to offer help in coordinating bibliographies. This would include disseminating information on which researchers have reference lists for the various groups of birds, key words, computer software packages, etc. I am beginning to collate a list of those of us who have substantial bibliographies. I am submitting questionnaires to the major seabird groups for their publications. Please photocopy and complete the questionnaire and return it to me. We will all benefit from this kind of cooperation. I look forward to hearing from you.

Species or species group	Approximate number of references (to the nearest 250)
.....	.....
.....	.....
.....	.....
.....	.....
.....	.....

Comments (e.g. geographical area, or topic such as physiology or seabirds at sea, in which your bibliography is particularly strong):

.....

.....

.....

Name: .....

Address: .....

.....

.....

.....

M.C. Coulter, Savannah River Ecology Laboratory, P.O. Drawer E, Aiken, South Carolina 29802, U.S.A.

INTERNATIONAL ORNITHOLOGICAL CONGRESS

STANDING COMMITTEE FOR THE COORDINATION OF SEABIRD RESEARCH

Minutes of Meeting, 27 June 1986,
XIXth International Ornithological Congress (IOC)
Ottawa, Canada

1. OPENING OF MEETING AND ADOPTION OF AGENDA

The Chairman of the Standing Committee, Dr D.N. Nettleship, welcomed members of the Committee and all others present to the open meeting of the Committee. Regrets were received from Dr P.H. Becker, Dr P.A. Buckley, Mr J. Cooper, Dr J. Coulson, Dr P.G.H. Evans, Mr C. Jouanin and Prof W.R. Siegfried. The agenda was adopted without modification. The Chairman briefly outlined the history of the Committee, with particular attention to its role in relation to the International Council for Bird Preservation (ICBP) Seabird Specialist Group.

2. MINUTES OF THE MEETING AT XVIIITH IOC, MOSCOW 1982

The previous Chairman of the Standing Committee, Dr G.E. Watson, presented an oral report. He noted that the main items discussed had been USSR seabird research, coordination of methods of recording seabirds at sea and the desirability of promoting seabird symposia at the XIXth IOC.

Dr G.L. Hunt, Jr and Dr R.W. Abrams reported on the establishment of the sub-committee for the coordination of seabird at-sea research. Dr Hunt had, as requested, prepared a draft list of participants and an operational protocol for a workshop on this topic. This had been sent to Dr Watson, but no further action had taken place.

Dr P. Devillers reported that issues concerning seabird nomenclature and taxonomy had been thoroughly discussed during a Round-table Discussion (RTD) which he had organized and chaired at the present congress. Dr Devillers would be proposing to hold a similar meeting during the next IOC.

3. ICBP SEABIRD SPECIALIST GROUP MEETING

The ICBP Seabird Group met during the ICBP World Conference at Kingston, Ontario, Canada, 20-21 June 1986. Dr R.W. Schreiber, Chairman of the Group, gave a brief report of the main features of the meeting, details of which will be published in seabird group newsletters (see Schreiber 1987, Cormorant 14: 81-82). The meeting had been attended by 48 people representing 19 countries.

a. Aims of Group:

(1) To identify and highlight conservation problems involving seabirds.

(2) To provide specialist advice on the above.

(3) To promote action on the above.

b. Existing operations:

(1) Supplement to the volume on status and conservation of the World's seabirds.

The supplement proposes to include treatments of areas not covered in the original volume and more detailed accounts of areas covered only in general terms in that volume. It is hoped to include accounts at least for Argentina, Brazil, British Columbia, Canada (mainly inland regions), Fiji and the Marianas. Additional authors who might be prepared to cover India, Malaya, Nicaragua and Thailand were suggested at the meeting. At present the copy deadline is 21 December 1988 with the publication date in late 1989.

(2) South American Newsletter

The first issue of this Newsletter, edited by Drs M. Coulter and D.C. Duffy, had just appeared.

c. Proposed main future initiatives:

(1) ICBP World Conference - 1990

It was proposed to hold two symposia and workshops on topics concerning seabird conservation:

i. On little-known, rare, threatened and endangered seabirds. This would provide a synthesis of all relevant historical, biological and conservation orientated data in the form of species accounts, which would ultimately contribute to a volume on the topic. The coordinating committee for this is at present: Dr N.J. Collar, Dr J.P. Croxall, Ms P. McGill-Harelstad and Mr C.J.R. Robertson.

ii. Conservation of seabirds on islands: theoretical considerations and pragmatic solutions. The coordinating committee for this presently consists of Dr B.D. Bell, Dr J. Burger, Dr D.J. Reville and Mr D. Wingate.

(2) Other initiatives

i. Review of marine pollution threats and issues. An *ad hoc* group to consider this was formed, with Dr I.C.T. Nisbet in the Chair.

ii. Problems associated with gill netting. Mr W.B. King was to prepare papers for the specialist group on this issue.

iii. Bibliographies. A group of interested parties subsequently met to discuss appropriate action.

d. Organization of the specialist group:

(1) Regional liaison representatives were identified and a list of these will be published in due course.

(2) An Executive Committee was formed to oversee the operations of the group. It comprises Dr B.D. Bell, Dr J.P. Croxall, Ms P. McGill-Harelsted, Dr R.W. Schreiber and Mr A. Sprunt.

4. SCIENTIFIC COMMITTEE ON ANTARCTIC RESEARCH (SCAR):

BIRD BIOLOGY SUBCOMMITTEE

The SCAR Group met on 9-10 June 1986 at San Diego, California. Dr J.P. Croxall, Chairman, presented a brief report on the main items. The Subcommittee at present comprises scientists representing nine nations. It has met annually, in the form of the BIOMASS Working Party on Bird Ecology, for the last eight years and is now expected to meet biennially under the auspices of SCAR. The main archiving operations overseen by the Group are the Central Databank for Antarctic Bird Banding and the register of Antarctic Colour Banding Operations, both held at the South African Bird Ringing Unit (SAFRING), University of Cape Town and the records of seabird at-sea data from the BIOMASS FIBEX and SIBEX operations (held in the BIOMASS Data Centre in Cambridge). The main current projects overseen by the Group are:

a. The International Survey of Antarctic Seabirds, which concentrates on penguins, and for which a review of coverage over the last eight years is being prepared.

b. Compilation of mass data on Antarctic seabirds.

c. A multinational project to study giant petrel dispersal due to be conducted in 1987-88.

d. Promotion of satellite remote sensing for locating and estimating the area of Antarctic penguin colonies.

5. ROLE OF IOC STANDING COMMITTEE ON SEABIRDS

Three main roles for the Committee were identified:

a. Communication and liaison:

Promoting exchange of information on IOC seabird-related activities, with a special reference to areas lacking seabird groups.

b. Providing a forum for discussion/action on specific problems and issues:

Four examples were mentioned:

(1) Directory of researchers - to incorporate species' groups, subjects and geographic areas interest.

(2) Seabird bibliographies

(3) Manuals of methods and techniques

(4) Coordination of seabird at-sea methods

c. Providing a means whereby suggestions for IOC symposia and other meetings, relevant to seabirds, can be passed to the Scientific Programme Committee of IOC and organizing bodies of other avian groups:

Considerable discussion ensued concerning which initiatives could realistically be undertaken by the Committee.

6. STRUCTURE AND ACTIVITIES OF THE IOC STANDING COMMITTEE ON SEABIRDS

The following arrangements were made:

a. Working Groups:

(1) Seabirds at-sea: coordination of methodologies

Dr R.W. Abrams was asked to see if support still existed for convening a workshop and/or establishing a working group on this topic. A report to the Chairman will follow.

(2) Bibliographies

It was noted that this topic would fit better under the aegis of IOC than ICBP. Dr M.C. Coulter was invited to act as the convener on behalf of the informal group established at the ICBP meeting and to report back to the Standing Committee as appropriate.

(3) Technological innovations and seabird research

There was considerable support for synthesizing information on this topic. Dr G.L. Hunt was asked to try to initiate this process and report back to the Standing Committee.

b. Communication:

The Chairman was asked to try to ensure that the record of this meeting appeared in the newsletters of all seabird groups.

c. Seabird meetings at XXth IOC:

It was agreed that the Chairman should prepare a brief notice to be inserted into seabird group newsletters to:

(1) draw attention to the venue and timing of the next IOC;

(2) present the Committee's initial ideas on topics, relating to seabirds, that might form part of the programme of this IOC; and

(3) solicit comments on these and other suggestions from seabird researchers, to be sent to the Chairman, who would collate and circulate these to members of the Committee and eventually forward an agreed digest to the Scientific Programme Committee of IOC.

The following preliminary proposals were made for the XXth IOC:

(1) Round-table Discussions

i. Taxonomy and nomenclature

ii. Current seabird research

(2) Workshops

i. Census techniques

(3) Symposium

i. Energy and activity budgets and patterns of seabirds at-sea: techniques, equipment and results.

7. MEMBERSHIP OF THE STANDING COMMITTEE ON SEABIRDS

Dr V. Zubakin (USSR) and Prof Wei-Shu Hsu (China) were elected. The Chairman, Dr D.N. Nettleship, was re-elected to serve another term.

8. OTHER BUSINESS

a. Colour-banding operations:

The Secretary raised, on behalf of Dr J.C. Coulson, the problems that were occurring owing to the proliferation of colour-banding operations. This was agreed to be a considerable problem and not susceptible of ready control or coordination. As a first step it was suggested that seabird groups should seek to establish lists* of the groups and individuals currently using bands on seabirds in order that the magnitude of present problems can be assessed.

b. Submissions to the Committee:

Prof N. Kuroda submitted a provisional classification of subject areas of seabird study and a list of manuals that could be initiated to enhance the effectiveness of seabird researches worldwide. The submission is intended for future reference by all seabird workers.

9. NEXT MEETING OF THE IOC STANDING COMMITTEE ON SEABIRDS

The Committee would meet during the XXth IOC in Christchurch, New Zealand in November 1990.

20 August 1986

J.P. Croxall, Secretary and D.N. Nettleship, Chairman

* see Cooper & Oatley 1985, Cormorant 13: 43-54 and Newton & Cooper 1985, Cormorant 13: 55-60.

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FOR THE COORDINATION OF SEABIRD RESEARCH

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* Present at the XIXth IOC Standing Committee Meeting in Ottawa, 27 June 1986.

XX INTERNATIONAL ORNITHOLOGICAL CONGRESS 1990

Preliminary Notice No. 1

The XX International Ornithological Congress will take place in Christchurch, New Zealand, from 2-9 December 1990. Professor Charles G. Sibley (USA) is President and Dr Ben D. Bell (NZ) is Secretary-General. The anticipated Congress programme will include plenary lectures, symposia, contributed papers (spoken and posters), workshops, discussion groups and films. There will be a mid-Congress excursion day. Pre- and post-Congress excursions are planned to interesting ornithological sites in New Zealand and adjacent regions. Requests for the First Circular and suggestions regarding Congress organisation should be addressed to:

Dr Ben D. Bell, Secretary-General, XX International Ornithological Congress, Department of Zoology, Victoria University of Wellington, Private Bag, Wellington, NEW ZEALAND.