

**LETTER OF INFORMATION OF THE
SOCIETY OF AVIAN PALEONTOLOGY AND EVOLUTION**

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Foreword

Cecile Mourer-Chauvire is happy to inform the members of the S.A.P.E. that the Proceedings of the Table Ronde "L'evolution des oiseaux d'apres le temoignage des fossiles" have been published in September 1987. Here is enclosed an order form for this publication which includes 18 papers about fossil birds from the Mesozoic to the Pleistocene.

News from the members

ARGENTINA

Los últimos resultados sobre los estudios de Claudia P. Tambussi y Eduardo Tonni estan incluidos en el trabajo "Las aves del Cenozoico de la Republica Argentina" presentado en el IV Congreso Argentino de Paleontologia y Biostratigrafia, realizado en Mendoza entre el 23-27 de noviembre de 1986.

Se encuentra en prensa en la revista Ameghiniana (Organo de difusion de la Asociacion Paleontologica Argentina) "Un nuevo Psilopterinae (Aves, Ralliformes} del Mioceno tardio de la provincia de Buenos Aires, Republica Argentina", realizado en colaboracion. Se describe una nueva especie de *Psilopterus* proveniente de sedimentos del Mioceno tardio del SW de la provincia de Buenos Aires. Desde el punto de vista cronologico constituye el registro mas reciente para un genero representado hasta ahora solo en el Mioceno temprano de Patagonia.

Igualmente en prensa en la revista Ameghiniana se encuentra "Catalogo critico de los Tinamidae (Aves, Tinamiformes} fosiles de la Republica Argentina".

Actualmente Claudia P. Tambussi se dedica casi exclusivamente al desarrollo de su tema de tesis para optar al titulo de Dr. en Ciencias Naturales "Las aves del Plioceno tardio-Pleistoceno temprano de la provincia de Buenos Aires" cuyo director es el Dr. Eduardo P. Tonni. Intento realizar un estudio complexivo de la avifauna plio-pleistocenica de la provincia de Buenos Aires abarcando aspectos sistematicos, paleozoogeograficos y bioestratigraficos.

BRAZIL

In May 1985 and April 1986 Herculano Alvarenga was in Buenos Aires, Argentina, at Museo Argentino de Ciencias Naturales, with Jose Bonaparte, studying a new flightless bird from Cretaceous of Patagonia ; it will be placed into a new order, certainly close to ratite birds.

H. Alvarenga is very busy preparing a collection of bird skeletons, probably the first in Brazil, which already includes 500 complete skeletons of recent birds.

BULGARIA

Zlatozar Boev, from Sofia, will be taking part, in 1987, in the third successive year in the joint French-Bulgarian Expedition on Pliocene Vertebrate Fauna, in the vicinity of Dorkovo, South Bulgaria. So far a distal fragment of the humerus of phasianid birds has been found.

By the end of 1987 he will have completed the manuscript of his monograph entitled "Osteological Atlas of Herons in Europe", Publishing House of the Bulgarian Academy of Sciences.

In 1988, jointly with Prof. Burchak-Abramovich and Dr. Kurochkin of the USSR, or jointly with Dr. C. Walker (British Museum, Natural History), they will be working on the determining of Miocene fossil birds found in Bulgaria: one Columbiform, the others probably Passerine.

In 1988 he expects to complete studies of fossil bird material found at excavations in Northeast and Southeast Bulgaria, which will be published in two papers : "Fossil data in the distribution of the Black Grouse in Bulgaria", and "Osteological features in determining Herons in Europe".

At the Second Symposium of SAPE he will present a brief paper "On the state and prospects of Paleornithological studies in Bulgaria".

Zlatozar Boev is chiefly interested in Quaternary Paleornithology and the past distribution and changes in the range of recent birds in Southeast Europe and the Balkan Peninsula.

CZECHOSLOVAKIA

The recent main paleornithological activities of Jiri Mlikovsky may be summarized as follows :

- (1) He described a new auk (Alcidae) from the late Oligocene of Austria (*Petalca austriaca* n. g., n. sp.)
- (2) He is describing a collection of bird bones from Quercy, housed in the Museum of Natural History of Vienna. It includes a new swift, a new guineafowl and a new coly.
- (3) He is describing remains of small birds from the Middle Eocene of Geiseltal, East Germany.
- (4) He submitted to press descriptions of several avian brains from the Middle Miocene of Hahnenberg, West Germany.
- (5) He continues his long-term study on the systematics and evolution of the waterfowl (Anseridae). A review of the Tertiary waterfowl of Asia was published, a review of the Tertiary waterfowl of Czechoslovakia was submitted to press and he is now preparing a review of the Quaternary waterfowl of Czechoslovakia.
- (6) He is preparing an overview of the Tertiary birds of central Europe. This he plans to submit to the IInd International Symposium of Avian Paleontology and Evolution and he would be much obliged to the members of the S.A.P.E. for sending him any new relevant information.
- (7) A list of his recent paleornithological publications follows :

Mlikovsky J. (1985) - Epigenetic evidence for the origin of birds. p. 429-438 in Evolution and Morphogenesis (J. Mlikovsky & V. J. A. Novak Eds). Praha : Academia.

Mlikovsky J., P. Svec (1986) - Review of the Tertiary waterfowl (Aves: Anseridae) of Asia. Vest. Cs. Spol. zool. 50:259-272.

Svec P., J. Mlikovsky (1986) - First tertiary record of the genus *Oxyura* (Aves: Anseridae). Cas. Mineral. Geol. 31: 403-407, 1 pl.

Mlikovsky J. (1987) - Eine neue Alkenart (Aves: Alcidae) aus dem Ober-Oligozän Österreichs. Ann. naturhist. Mus. Wien (A) 88: 131-147, 2 pl. (with a contribution by J. Kovar).

Mlikovsky J. (1987) *Archaeopteryx* as a symbol of evolutionism. p. 66-68 in Towards a new synthesis in evolutionary biology (J. Mlikovsky & V. J. A. Novak, Eds. Praha: C SAV.

EAST GERMANY

Burkhard Stephan, from Berlin, has published a paper on fossil egg-shells from the Pleistocene of Weimar and another one on the reconstruction of the *Archaeopteryx* wing. In the next years he will begin anatomical studies on the birds wing in context with *Archaeopteryx*.

FRANCE

Since September 1985, Jean Christophe Balouet has visited the Smithsonian Institution twice in the beginning of 1986, thanks to a grant of its Office of Fellowships and Grants. These journeys were organized in order to study the small non-passerine fauna of the various Holocene localities in New Caledonia. This study, in collaboration with Dr. S. Olson, enabled the description of 9 new taxa. As the comparison collection for New Caledonian passerine was so poor, a collecting trip was organized by the Smithsonian in August and September 1986. During this journey, the paleontological prospections enabled the discovery of 3 new localities in New Caledonia and the two first paleontological sites for Viti Levu (Fidji). Diggings in Gilles Cave (New Caledonia) enabled the collect of several thousand bones which deposit was prior to man arrival. The subfossil passerine of New Caledonia will be studied in collaboration with Dr. S. Olson, in Autumn 1987, thanks to another grant of the Smithsonian Institution.

A paper describing a new species of giant imperial pigeon from Wallis and Futuna (with Dr. S. Olson) is in press at the Biological Society of Washington, and a general paper on *Aegothales* (with Dr. S. Olson and Dr. Fisher, from Liverpool) has been sent to Emu. He recently finished a paper with Dr. Jouanin (Museum de Paris) on the geographic origin of the dwarf emus collected in 1804 by Baudin, to be published in l'Oiseau et la Revue francaise d'Ornithologie.

For the international congress on extinctions held in Paris in October 1985, J. C. Balouet presented a paper on the Quaternary extinctions of terrestrial vertebrates in New Caledonia.

In the international congress on the "Biogeographical aspects of Insularity", held in Roma in May 1987, he presented a paper on the paleobiogeography of New Caledonia.

He intends to finish, by the end of 1987, a general book of 192 p., on species that became extinct by man, to be published by Albin Michel, Paris, in April 1988.

JACQUES CHENEVAL is now very busy with his job in a private school, and he hasn't much time left to work about fossil birds. When he has some free time, Jacques, abandoning temporarily his "dear" Miocene birds from the Saint-Gerand-le-Puy area, gets on with the study of the birds from the Pisco Formation (Mio-Pliocene boundary from Peru). On the South Pacific coast from Peru, in the Sacaco area, R. Hoffstetter, in 1967, has discovered some deposits which contain a very important vertebrate fauna; from 1976, c. de Muizon, of the "Museum national d'Histoire naturelle" of Paris, has done some missions of excavations, and has carried back a spectacular collection of vertebrate remain". The Sacaco faunas are known especially by their very rich remains of sea mammals (seals, dolphins, whales), but also contain remains of pisces and birds. The avifauna is also very rich. A preview has demonstrated that it contains aquatic birds only, penguin, gannet, and cormorant are the most three important birds, but there are also a few remains of Procellariidae and Scolopacidae. At last, but not the least, these remains contain also a humerus of a Pelagornithidae which looks like very much *Pelagornis miocaenus* from the Middle Miocene of France.

In another way, excavating in the quarry "Les Pérards" (Saint-Gerand-le-Puy area) where participants went during the Round Table in

1985, a student of the University, F. Escuillie, has found a near complete skeleton of *Palaelodus ambiguus* which he brought to Jacques in order to study it. The most important point of this find is the presence of a fragmentary bill connected with the post-cranial skeleton and a fragmentary skull (not connected, unfortunately); it seems it will permit (after all!) to "find the answer of the riddle" of the *Palaelodus* skull, its possible connections with the skulls all similar and described as *Palaelodus* (Milne-Edwards, Rothausen), or *Ibidopodia palustris* (Milne-Edwarda), or *Probalearica problematica* (Milne-Edwards, Cracraft); maybe it will also permit, at the end, to definite if the Palaelodidae family should remain into Phoenicopteriformes, or if it should move in the avian classification.

Christine Lefevre, from Paris, is preparing a thesis about the avifauna of several archaeological sites of Patagonia. The main avifauna comes from the site of Punta Baja.

The main centres of interest of Cecile Mourer-Chauvire are the birds from the Phosphorites du Quercy and the extinct insular avifaunas.

As far as the Quercy birds are concerned, the revision of the Strigiformes has been published in the proceedings of the Table Ronde sur l'Evolution des Oiseaux d'apres le temoignage des fossiles. The most abundant genus among the Quercy Owls is *Necrobyas* of which it has been possible to describe the main skeletal elements. The comparative anatomy has shown that the genus belongs in the family Tytonidae. Some other remains ascribed to the recent genera *Bubo* and *Asio* have been transferred to new genera and three other genera have been described. All of them are placed in the family Tytonidae, which was in the Paleogene much more diversified than at the present time. Another very primitive family of Strigiformes, the family Sophiornithidae, has also been described.

A study of the Podargidae and Nyctibiidae of Quercy, with description of two new genera, has been presented during the XIXth Congressus internationalis Ornithologicus, in Ottawa, in June 1986.

A revision of the Aegialornithidae (Apodiformes) of Quercy, with a comparison with the Messel form *Aegialornis szarskii*, has been presented at the Messel Symposium, in Frankfurt, in April 1987.

Finally a revision of the Galliformes of Quercy is currently in preparation for the Second International Symposium on Avian Paleontology and Evolution, in Los Angeles, in September 1988.

For the extinct insular avifaunas, C. Mourer-Chauvire has described, in collaboration with Peter Weesie, from Utrecht, a new species of Eagle Owl from Sardinia and Corsica, *Bubo insularis*. The recent Eagle Owl, *Bubo bubo*, is absent from Sardinia and Corsica. In the Pleistocene, its ecological niche has been occupied by a dwarf form which probably fed mainly on a small endemic lagomorph of the genus *Prolagus*. The disappearance of its prey probably led it to extinction.

Some subfossil bird remains have been found in La Reunion island, in the Indian Ocean. Among these remains, C. Mourer-Chauvire and Francois Moutou have described a new insular endemic form of ibis, *Borbonibis latipes*. C. Mourer-Chauvire and F. Moutou intend to do some fieldwork in La Reunion to collect more material and try to find the remains of the numerous species which have been quoted in the accounts of the early travellers and have not yet been found as fossil.

GREAT BRITAIN

Michael Daniels has sent the following information about the Waltonian avifauna:

THE WALTONIAN AVIFAUNA OF BRITAIN

First investigated by myself and two others in 1974, the low London Clay of Essex south east England, has from that time onwards, produced many examples of lower Eocene bird life. This fauna is of great variety, both in size and type.

My own collection now totals over 350 specimens from two bird rich localities. Birchanger, an inland highway excavation no longer accessible and the existing Naze cliffs and foreshore at Walton-on-the-Naze, on the North Sea coast.

A significant and fascinating aspect of the British material is that it bears close comparison to some of the avian fossils of similar age found in western North America. Indeed, several varieties of birds of exactly the same species, are now recorded from localities both in England and in the United States.

The accompanying tables should provide some general indication of content of the avifauna.

Daniels size code	A	B	C	D	E	F	G	H	I	J	K	L
Living bird as size guide	Goldcrest	Blue Tit	Little Stint	Dunlin	Ringed Plover	Turnstone	Grey Plover	Godwit	Oystercatcher	Curlew	Gannet	Canada Goose
Living bird Scientific Name (Genus)	<i>Regulus</i>	<i>Parus</i>	<i>Calidris</i>	<i>Calidris</i>	<i>Charadrius</i>	<i>Arenaria</i>	<i>Pluvialis</i>	<i>Limosa</i>	<i>Haematopus</i>	<i>Numenius</i>	<i>Sula</i>	<i>Branta</i>
Occurrences	10	16	32	29	54	37	27	19	20	3	4	1

Table 1. Size Range and frequency. Sample 252 birds

Daniels Code	Living Group Order	Earliest Fossil Record	Similar	Some Shared Characters	Vague Suggestion Of Similarity	Totals
D	Tinamiformes			18	1	19
F	Gaviiformes	Late Eocene			2	2
G	Procellariiformes	Lwr Miocene	2	2	-	4
H	Pelecaniformes	Eocene	1	3	-	4
I	Ciconiiformes	Eo-Oligocene	-	-	1	1
J	Anseriformes	Eocene	2	4	2	8
K	Falconiformes	Eocene	2	1	2	5
L	Galliformes	Lwr Eocene	2	6	2	10
M	Gruiformes	Oligocene	-	12	7	19
N	Charadriiformes	Late Cretaceous	5	16	8	29
O	Columbiformes	Late Eocene	1	3	7	11
P	Psittaciformes	Lwr Eocene	2	10	19	31
Q	Cuculiformes	Eocene	-	9	14	23
R	Strigiformes	Palaeocene	9	8	10	27
S	Caprimulgiformes	Lwr Eocene	5	5	9	19
T	Apodiformes	Lwr Eocene	4	7	4	15
U	Trogoniformes	Lwr Oligocene	-	2	2	4
V	Coliiformes	Late Eocene	-	-	1	1
W	Coraciiformes	Lwr Eocene	5	18	12	35
X	Piciformes	Mid Miocene	4	16	10	30
Y	Passeriformes	Late Oligocene	-	4	12	16

Table 2. Type Range and Frequency

It is necessary to point out that although the number of referrals in Table 2 total 311, the actual sample of specimens is much less. Many shown in the 'vague' section frequently represents split opinions on the material; sometimes up to four differing views on one item are accounted for in the figures. Approximately 45% of specimens in the collection are entirely unreferred, and of these a fair proportion are likely to remain so.

I think it will be of additional interest to briefly mention where examination of my collection by various authorities, has resulted in a number of specific referrals.

A bird convincingly Procellariiform in structure, closely approximates *Fulmarus glacialis* in size. Amongst the Pelecaniformes, there is a coracid reminiscent of the Phaethontidae. Several extensive examples, closely scrutinized and compared, appear to be a mix of Anseri and Galli characters (?screamerlike, *Anhima*) One perfect tarsus of a nestling bird, is similar to that of *Mergus*. Another excellent tarsus has Cathartine characters and a further group of leg bones resembles those of *Pandion*. Decidedly pheasantlike birds are represented (Phasianidae); likewise rallid types including birds suggestive of both *Porzana* and *Aramides*. Within the Charadriiformes various examples occur of wading birds and several seem near to the Alcidae. Three specimens at least could be ancestral to the Psittaciformes...all small types. A number of fossils are confidently assigned to the Strigiformes where excellent material is available. The tarsus suggests that the foot condition was more truly zygodactyl amongst the London Clay types than is seen in present day owls. Some extensive species are reasonably close to the Caprimulgiformes, several tentatively referred to Steatornithid-like forms. A range of beautifully preserved examples are seen as near to the Hemiprocnidae in the Apodiformes, but of the branch Trochilidae, nothing as yet is referable although minute birds of tiny humming-bird size are not infrequent amongst the Walton fauna. Recording the occurrence of birds with affinities to either the Trogoniformes or Coliiformes is highly speculative. This in contrast to the Coraciae, where there is good evidence for believing: that kingfisher (Alcedinidae) and rollerlike (Coraciidae) birds are in the collection. One item is definitely viewed as an ancestral ground roller (Brachypteraciinae). No really woodpeckerlike bird appears present, but at least two specimens are regarded as having barbet (Capitonidae) characteristics. More types are just generally reminiscent of the Piciformes, but equally could be akin to the Psittaci, Cuculi or Striges. Differing opinions as to the antiquity of the order Passeriformes cautions me against referrals to this group, nevertheless some specimens favour serious consideration for

inclusion herein and, as with all the figures I produce in this table, none at this stage are categorical.

Michael Daniels
118 Dulwich Road,
Holland-on-Sea, Essex, U.K. 4th July 1987

Footnote. I believe it is becoming increasingly evident that a substantial proportion of this Eocene material probably has no direct connection to modern fauna. That features concur with living types may simply demonstrate shared possession of structural detail inherited from some unknown common ancestor. Whole branches of the avian realm, with many long extinct, may surely find representation in this remarkable assemblage .

The recent work of Colin J. O. Harrison has been mainly concerned with a revision of British Pleistocene birds. Having published a summary paper on Pleistocene birds of south-eastern England, he has recently compiled another one on his studies of Pleistocene and early Holocene bird remains from south-western Britain which were available for study (some referred to in literature having been destroyed during the last war). He is now working on a similar survey of material from midland and northern English regions and North Wales. He is also receiving from amateurs further specimens from sites in the south-east.

Swans *Cygnus* and cranes *Grus* from the Maltese Pleistocene (125000 B.P.) have been the chief subjects of the recent research of Marjorie Northcote and this has required a study of swans and cranes from other levels as well as the present. She elucidated the size, form, habit and habitat of the giant extinct Maltese Swan, *C. falconeri* (1982 a, 1981-1983) using data from studies on Neolithic-Bronze Age (1980) and recent (1979, 1980, 1981 a, 1981 b, 1983) Mute *C. olor* and Whooper and Bewick's *C. cygnus* Swans. *C. falconeri* lived on Malta with Whooper Swans and with an extinct "swan-geese" *C. (Anser?) equitum*. She has shown that, without doubt, it was indeed a swan and she has worked out its size, form, habit and habitat (in press). Similarly Marjorie Northcote has worked out the size, form, habit and habitat of the giant, extinct Maltese crane *G. melitensis* by comparing it with other cranes (1982 b, 1984, 1984-1985) including Common Cranes *G. grus* with which it was contemporaneous (1982 c). Another extinct crane *G. primigenia* that lived in Europe during the Pleistocene, as large as, but different from, the Sarus Crane *G. antigone* (1985) was also present in the Mediterranean (in preparation). The aim of this project is to present a review of the extinct swans and cranes of Europe.

HUNGARIA

Denes Janossy, from Budapest, has a large quantity of new Lower Pleistocene bird material and also, for the first time in Hungaria, a Miocene one. He begins just now with the elaboration of this very interesting material.

ITALIA.

Carlo Violani, from Pavia, is presently involved with a study of the recent and subfossil remains of the Great Auk, *Alca impennis*, preserved in various world museums. Together with Dr. Giovanni Boano of Carmagnola Museum of Natural Sciences (province of Turin) they are both-studying a fossil duck and other waterfowl probably dating from the Pliocene of Piedmont.

THE NETHERLANDS

Peter Weesie, from Utrecht, has defended in May 1987 his Ph.D. on the Quaternary avifauna of Crete, Greece. Re hopes his paper will be published in *Paleovertebrata*. Now he is leaving to work as an Ecologist at Ouagadougou, Burkina Faso.

NEW ZEALAND

Beverley McCulloch, Curator-in-charge of the subfossil birds at the Canterbury Museum, sent the following information :

In May 1987, a farmer draining a swamp in North Canterbury unearthed some well preserved moa bones (Moa is the common, collective name for about 12 species of large ratites, belonging to the family Dinornithidae, which became extinct about 500 years ago).

A preliminary investigation showed that there was a large deposit of moa skeletons present, the remains of birds which had become bogged in a spring-hole swamp sometime in the post-glacial period.

During a week-long salvage operation the major parts of about twenty skeletons belonging to four moa species were recovered, most of them extremely well preserved. An unusually high number of skulls were found, and there was also a large proportion of juvenile birds, which is also uncommon.

Among the bones were quantities of gizzard stones, and well preserved vegetable material which had formed the moas' last meals prior to entrapment. There was also some moa egg shell, and bones of smaller carinate birds.

This preliminary salvage operation cleared the way for the farmer to resume excavating his drainage ditch, but left the remainder of the deposit untouched. It is hoped that we will be able to carry out a major excavation at the swamp in the summer of 1988, with far

more detailed work being done. Remarkably little is known of the biology and ecology of moas, and this site may prove to be one of the most important so far discovered.

The most recent ornithological publications of Ron Scarlett are

Tereingaornis moisleyi, a new Pliocene Penguin. New Zealand Journal of Geology and Geophysics, vol. 26, p. 419-428, 1983.

This was his first penguin paper, and he is pleased to say it met approval from his lamented friend George Gaylord Simpson and from Brian Marples.

The other paper was a joint one with Ralph Molnar of Queensland Museum :

Terrestrial bird or Dinosaur phalanx from the New Zealand Cretaceous. New Zealand Journal of Zoology, vol. 12, p. 271-275.

Although he wrote up this phalanx comparing it to those of birds and Ralph Molnar from the Dinosaur angle, he feels that it is of a Theropod Dinosaur. Cases of both a theropod and an ornithopod Dinosaur are now known from the same deposits from which the phalanx was derived.

After many years at Canterbury Museum as osteologist, Ron Scarlett retired from that position at the end of March 1972, as he had reached the age of 70. However he is still present most days as Research Associate, but much of his work is now done in non-osteological direction.

SOUTH AFRICA

The primary interest of Graham Avery, from Cape Town, concerns the study of Upper Pleistocene and Holocene avian remains. The samples he has at his disposal are mainly archaeological. Consequently, the basic interpretations he makes relate to human activities. However, his research is also directed at obtaining palaeoecological and palaeoenvironmental information. He is also studying samples from bone accumulations made by avian and mammalian predators in order to arrive at a better understanding of the origins and nature of the fossil bird assemblages.

Philippa Haarhoff, from Cape Town, is no longer curator of the bird collection of the South African Museum and she is now working on wood anatomy in the Palaeobotany section. The collections of comparative material are now all the responsibility of one department. Enquiries as regards the comparative avian osteology collection should now be directed to Ms Denise Hammerton or to Dr. Geoff McLachlan.

However P. Haarhoff is keeping on fossil bird studies in her own time. She is busy trying to complete a project on the vulture remains from Langebaanweg (Early Pliocene). So far she thinks it is a member of the genus *Aegyptius*. As the fossil record for the Old World Vultures in the Old World is very patchy, it is of interest to have this record. The material is very well preserved and includes one associated partial skeleton and fifty-five bones from at least three other individuals.

Another project P. Haarhoff is busy on is with Pierce Brodkorb on the Coliidae from Olduvai. This material constitutes the second record for this group in Africa. It appears to be most similar to the genus *Colius* and could possibly represent a new species. A paper describing a new stork from Langebaanweg has been accepted for publication in the Annals of the South African Museum.

Whilst examining the bones of the feet of some of the Recent vulture species, P. Haarhoff noticed that the basal phalanx of digit II in the species *Aegyptius (Torgos) tracheliotus* (Lappet-faced Vulture) and *Aegyptius (Trigonoceps) occipitalis* (White-headed Vulture) is very eagle-like, being compressed and stout, whereas in the Griffon Vulture (*Gyps* ssp.) it is long, not too different from the rest of the phalanges. She has not seen any comments on this in the literature and she would be most interested to know if anyone has any ideas on the significance of this feature.

In addition, in one out of the two specimens she has studied of White-headed Vulture, phalanges II and III of digit IV are fused. The same two bones have been found fused in one out of the two Secretary Bird (*Sagittarius serpentarius*) skeletons examined. On the subject of fusion of phalanges in the Falconiformes, she has read only the one paper by Storrs Olson in the Bull. Brit. Orn. Cl. 1982: 102 (1) in which he discusses fusion of the basal phalanges of digit II in several genera within the Accipitridae. He suggests that this is an uniquely derived character that could perhaps be used to define a small, monophyletic group within the diverse Accipitridae.

Because the fusion she has observed in digit IV is not a constant feature, it cannot be of much taxonomic use, but it is intriguing all the same.

SPAIN

Xisca Florit and Josep Antoni Alcover are working on fossil birds from Balearic and Canary Islands. The first results have not yet been published. They have four manuscripts in press :

Alcover J. A. & Florit X. - Una nueva especie de *Carduelis* proveniente de los depositos espeologicos cuaternarios de la isla de La Palma (Aves: Fringillidae). Vieraea, La Laguna.

Florit, X., Mourer-Chauvire C. & Alcover J. A. -Els ocells pleistocenicis d'Es Pouas (Eivissa). Nota preliminar. Butlleti de la Institucio Catalana d'Historia natural. Barcelona.

Florit X. & Alcover J. A. -Els ocells del Pleistoceno superior de la Cova Nova (Capdepera, Mallorca). I & II. Bolletí de la Societat d'Historia natural de les Balears. Ciutat de Mallorca.

Alcover J. A. & Florit X. -Els ocells del jaciment arqueologic de La Aldea, Gran Canaria. Butlleti de la Institucio Catalana d'Historia

natural. Barcelona.

Two other papers are in preparation, one on the fossil birds from La Gomera, Canary islands, the other on the fossil vertebrates of La Palma, Canary islands. During the summer of 1989 they prepare a great excavation in Eivissa, Balearics. The main results are a new biogeographic interpretation proposed for the avifaunas of the Upper Pleistocene of Eivissa and Formentera and the discovery of several new species: a *Carduelis* n. sp. at La Palma, a new owl and a new goose at Eivissa, and a new corvid at Mallorca.

The main interests of X. Florit and J.A. Alcover are :

- Plio-Pleistocene insular avifaunas from Canary, Balearics and other Mediterranean islands.
- Fossil birds from Catalan countries.

At the present time J. A. Alcover is working for one year with Eduardo Tonni at the Departamento de Paleontologia, Museo de Ciencias naturales de la Plata, Argentina.

Antonio Sanchez Marco, from Madrid, works on the Pleistocene avifaunas of the Iberian Peninsula. He is studying the following pleistocene deposits: Atapuerca complex (Burgos), Valdegoba (Burgos), Los Casares (Guadalajara), Casablanca I (Castellon), El Tossal de la Roca (Alicante), El Romani (Barcelona) and Cueva Ambrosio (Granada).

He is also working on the Pliocene avifauna of Layna (Soria). Likewise a reappraisal of earlier studies on fossil birds from the Iberian Peninsula has been undertaken.

UNITED STATES

Berkeley

The recent avian paleontological activities of Kenneth I. Warheit are as follows :

- (1) He is completing work on the systematics and fossil history of the Sulidae (Order Pelecaniformes).
- (2) He is continuing his work on the fossil history of seabirds using the California Current Upwelling System from the early Miocene to the Recent, and the extinction of the Sulidae in California. Related to this work, he has recently completed research on a review of the potential ecological interactions between seabirds and pinnipeds in California over the last 16-20 Million years (Miocene to Recent). The results of this research will be published in late 1987 or 1988.
- (3) He is initiating work, with Storrs Olson and the Smithsonian Institution, Washington D.C., on a revision of the morphology and systematics of the "Bony-toothed" birds, the pseudodontorns (Pelecaniformes: Odontopterygia).

Claremont

The work of Dan Guthrie has been with late Pleistocene marine material from California. Most interesting is an auk that is intermediate between Rhinoceros Auklet and Tufted Puffin, dated about 12,000 B.P. and represented by the remains of literally thousands of individuals. A paper is forthcoming.

Los Angeles

The work of Hildegard Howard is as follows :

For Wilson Bulletin, vol. 99, no 2, June 1987, a review of Storrs Olson's chapter "The fossil record of Birds" in Avian Biology, vol. VIII.

For Contributions in Science (Natural History Museum of Los Angeles County) n° 383, June 18, 1987, co-authored with Lawrence G. Barnes (specialist in marine mammals) a study of Middle Miocene marine birds found in Orange County, California. Bird bones were poorly preserved and no new species were described. Observed relationship to Middle Miocene of Sharktooth Hill Bonebed, Kern County, California, well to the North, in *Diomedea ?milleri*, *Puffinus priscus* and Sulidae. Also included was genus *Alcodes* (Alcidae) that H. Howard previously described from the late Miocene of Orange County.

H. Howard is now studying anseriform bones from the Sharktooth Hill Bonebed, and naming a new genus and species.

San Diego

During the past years Amadeo M. Rea has worked mainly on the avifaunas from archaeological sites. He is busy now on the ethnobotany of the tribe he had been working with for the past quarter century, checking manuscript with a native speaker.

Washington

Jonathan Becker spent 5 weeks on Aldabra Island, Republic of Seychelles, collecting late Pleistocene birds. Fossils collected include a rail, three shearwaters, a tropic bird, a booby, a hawk, and a diverse herpetofauna.

He has accepted a Chapman Postdoctoral Fellowship at the American Museum of Natural History in New York, to begin on first October.

After a decade of independent study of Early Eocene birds from the Green River Formation, Storrs Olson is now collaborating with Peter Houde on these and other Paleogene birds from Wyoming, preserved in calcareous nodules. Houde and Olson are currently supported by their second Smithsonian Scholarly Studies Grant for this project, which sponsored another banner year of fossil bird collecting this summer in Wyoming. The fieldcrew, also including Fred Grady and Sharon Messenger of Smithsonian, collected at least two totally new birds but they have no idea yet of what the relationships of these birds may be. Houde and Olson anticipate the imminent publication of the first two of several major groups of the Paleogene birds, namely the paleognathous birds and the small arboreal birds originally included in the polyphyletic Primobucconidae. Work on the other members of the avifauna are dragging along due to the protracted acid-preparation of the nodules. Another obstacle is the problem of correctly associating disarticulated elements when, as in one nodule xxx, or more undescribed small birds are thoroughly mixed. More aggravating is the problem that some owls and "primobucconids" were originally described on the basis of only the tarsometatarsus or distal tibiotarsus, which are missing in some of Houde and Olson's otherwise remarkably complete specimens. Neither of the two partial owl skeletons Houde and Olson possess can be assigned to even a family level! Other birds of the nodule avifauna include a small phorusracid-like bird, a cathartid-like raptor xxx Coraciiformes and Caprimulgiformes. Among the diverse coly-like *Eobucco*-assemblage is a newly discovered member whose bill is specialized for xxx as in some icterids.

At the end of the year, Houde will be leaving the Smithsonian and moving to Princeton University for two years to investigate the relationship of finfoots and limpkins at Princeton University. Apart from the obvious dubiousness of such a relationship because of their manifold morphological dissimilarity, the fossil record of limpkins significantly predates the supposed limpkin-finfoot divergence. Houde's work will xxx primarily cloning and sequencing avian DNA from long-dead museum specimen in an attempt to account for the claim of limpkin-finfoot relations and, in turn, to test various assumptions currently in vogue in molecular studies. Helen James and Storrs Olson have nearly finished the manuscript describing some 35 new species of fossil bird from Holocene deposits in the Hawaiian Islands. Many more remain to be described the material available so far is not sufficient for proper diagnoses. They will be returning to Hawaii from about October 1987 to February 1988 for more excavation and exploration. Last Christmas Storrs Olson picked up a large plastered xxx from the Charleston Museum, which, when expertly prepared by Fred xxx in the Smithsonian's Dept of Palaeobiology, was found to contain a complete skull and mandible, plus humerus, radius, femur, tibiotarsus and tarsometatarsus of the largest pseudodontorn (Pelagornithidae) found (the humerus is nearly 1 m long). It is late Oligocene (Chadronian), in age. Storrs received a substantial grant for planning an exhibit with a full skeletal reconstruction based on this specimen. Kenneth Warheit at the University of California, Berkeley, has been hired to do the xxxxx necessary for implementing the reconstruction and will be in Washington for several months this fall.

USSR

Leningrad

Lev A. Nessov plans in field work of 1987 to investigate xxx regions in the foothills of the Tian-Shan Mountains around vast Ferghana Valley in Kirghiz and Tadzhik SSR. He wishes to find there new xxx of Aptian-Albian, Late Turonian-Santonian and Campanian ages with eggshells (in the Ghodzhaosman Fm., Jalovat Fm. and Nikesay Fm. correspondingly). In Campanian levels in Northern Ferghana are angustocanal smooth egg (about 23-27 x 48-55 mm) and egg-shells of supposed terrestrial *Gobipteryx*-like form. He hopes to find new more ancient levels with avian-like egg-shells and to excavate locality with tiny flying vertebrate bones of Callovian age.

In near-by-Tashkent region of Kazakhstan he wishes to continue the search of bones of the Late Paleocene birds (charadriiforms, owls, etc...) which lived on warm coastal plains and sea gulfs.

In central-eastern part of Kizylkum desert (Uzbekistan), Lev A. Nessov plans to visit Middle Eocene localities with bird bones, discovered in 1985. In central-western part of Kizylkum he has series of outcrops in the Taikarshin Beds with Coniacian forest and near shore small and middle-sized forms (Alexornithiform-like birds, 2 families of Ichthyornithiformes and new undescribed species and genera). This region is the best in the USSR and possibly in the Old World for discovering new Cretaceous bird remains.

In south-western part of Kizylkum, his group plans to investigate Late Albian and Early Cenomanian localities containing scarce bird remains.

Lev A. Nessov is preparing two papers, one on Paleogene birds for the Proc. of Zool. Inst., Leningrad, the other one on Cretaceous and Paleocene forms of the USSR and environments for attention of the reviewers of the IInd International Symposium of SAPE.

Moscow

In the Palaeontological Institute of the USSR Academy of Sciences three scientists are studying fossil birds: E. Kurochkin, A. Karkhu and G. Mikhailov. L. P. Tatarinov and A. Rautian are very interested in the results of the paleornithological investigations. A. Karkhu is studying fossil birds from the USSR Paleogene. He has just finished a description of a new family, genus and species of the Suborder Apodi, using a partial skeleton from the Caucasian Oligocene. The paper is being published in "Paleontologicheskii Zhurnal". His next publications will deal with phylogeny and an analysis of the path of morphological specialisations for the order Apodiformes in Paleogene. A. Karkhu has spent many hours preparing the small bones of this swift with the aid of a binocular microscope. As a result, he has picked out all the separate bones of this tiny skeletal impression in which, for example, the humerus is 9 mm long.

G. Mikhailov has finished a dissertation "The evolution of eggshells membranes of Sauropsida". We hope that his publications which have appeared in "Paleontologicheskii Zhurnal" and in "Acta zool. Cracoviensia" will attract the interest of our colleagues. His investigations centre on the study of Cretaceous birds eggshells and Neogene Ratites, together with Reptiles eggshells. The principal results were obtained by using a SCAN electronic microscope. A. Karkhu and G. Mikhailov spent the period from May to September in Mongolia, excavating the sites of Cretaceous and Paleogene Vertebrates.

E. Kurochkin continues to develop his ideas on early differentiation of birds on some main branches in Mesozoicum. For this the findings of the Early Cretaceous birds and Paleogene Paleognathes have had some importance as fertilization.

The new building and exhibition of the Paleontological Museum will open for the public in October. We have all spent a lot of time and energy on this exhibition. E. Kurochkin and A. Karkhu created two show-cases: "Early Oligocene Fauna" and "*Indricotherium* Fauna" in Cainozoicum Hall. In the "Dinosaurs Hall", three show-cases for the fossil birds were created. C. Mikhailov created seven horizontal show-cases for the eggs of fossil reptiles and birds.

We continue to pay a lot of attention to our comparative osteological collection and will accept all suggestions for the exchange of bird skeletons with interest.

WEST GERMANY

In a paper in the German "Journal für Ornithologie." (1986, 127: 487-507) - Paul Bühler discussed critically the results and theories which were presented at the international *Archaeopteryx* meeting in Eichstätt, Bavaria, in 1984.

Paul Bühler, together with Larry Martin and Lawrence Witmer, from Lawrence, Kansas, finished a larger manuscript on the upper jaw mobility of the Hesperornithidae recently, and now they are hoping that the paper will be in press soon.

At the moment P. Bühler is especially studying pneumatized and other light weight structures of the skeleton of extant and early birds, inclusively the relative thickness of the wall of long bones in theropods, for comparison.

Angelica Hesse, at the Forschungsinstitut Senckenberg, in Frankfurt, is working on fossil gruiform birds of the Messel site (western Germany, Middle Eocene), the so-called Messelrails, which represent a new, until now undescribed, family. This work is done in the scope of her thesis and is supervised by Dr. D. S. Peters.

After having finished her thesis, she plans to describe another genus of Messelrails from the Green River Formation of the United States, which belongs to the collections of the Forschungsinstitut Senckenberg.

E. Martini, from the Geologisch-Paläontologisches Institut of the University of Frankfurt, has published, together with H. Tobien, the finding of a rail, *Pararallus hassenkampfi*, from the Oligocene site of Sieblos:

E. Martini & H. Tobien (1984) - Wichtige Wirbeltier-Neufunde im Tertiär der Rhön (Sieblos, Theobaldshof). Beitr. Naturkde. Osthessen, no 20, p. 133-137.

Harald Pieper, from Kiel, realized a trip to Madeira and Porto Santo for bird bone collecting in September 1986 and the next one, hopefully including also the Ilhas Desertas, will take place in September 1988. His next paper will deal with problems of the genus *Pterodroma*.

In 1986 he has published, together with H. Reichstein, from Kiel, a paper on medieval bird bones from Haithabu, Schleswig-Holstein, and in 1987 he gave a "Sammlungsverzeichnis der Knochen von *Dronte*, *Raphus cucullatus* (Linnaeus, 1758) und Einsidler, *Pezophaps solitarius* Gmelin, 1788" in the Zoological Museum of Kiel.

This information letter has been compiled by Cecile Mourer-Chauvire, Secretary of the S.A.P.E., who hopes the members will find it of interest. Contributions to assist in defraying mailing expenses will be gladly accepted by the Secretary.