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News from the members

ARGENTINA

LUIS M. CHIAPPE is continuing his dissertation on the osteology and relationships of a cursorial Late Cretaceous bird from Patagonia. During October of 1988 a new enantiornithine bird was found in the Late Cretaceous beds of the Rio Colorado Formation of north-western Patagonia (the same deposits yielded the remains of the cursorial bird). This material represents an articulated and almost complete skeleton. It was preliminarily reported by Chiappe & Calvo (VI Jornadas Argentinas de Paleontologia de Vertebrados. San Juan. 1989. p. 19-21). and is currently under study by Chiappe.
An application to the Frank M. Chapman Memorial Fund for 1989 was approved. This grant will permit a one month field season in the Rio Colorado Formation. This field season is projected for the end of this year.
Regarding Tertiary birds. Chiappe & Soria submitted to the International Commission on Zoological Nomenclature a discussion about the valid spelling of *Phorusrhacos* Ameghino, 1887. and its correspondent family name.

AUSTRALIA

Although ROBERT BAIRD is no longer working full time in Avian Paleontology, he has been able to complete a number of projects in his spare time (see reference list). All of these projects, bar two, are directed to determining whether avian assemblages in Australia are good indicators of palaeoclimate. Baird (1989) tries to point out that preliminary information indicates that this is indeed the case when compared with other forms of proxy information on continents. Once a number of smaller avian assemblages are completed (e. g. Skull Cave, Madura Cave etc...) he plans to concentrate on the caves in the Buchan region of eastern Victoria to ascertain whether bioclimatic analysis is possible. This type of analysis would provide both precipitation and temperature data for those periods within which the avian assemblages were originally accumulated.

References:

- Baird, R. F., 1989. Fossil bird assemblages from Australian caves: precise indicators of late Quaternary environments? *Palaeogeogr. Palaeoclim. Palaeoecol.* 69, 241-244.
Baird, R.F., in press. The Quaternary avifauna of Australia. In *Vertebrate Paleontology of Australasia*. P.V. Rich, R.F. Baird & E.M. Thompson, eds.
Baird, R.F., in press. The taphonomy of late Quaternary cave localities yielding vertebrate remains in Australia. In *Vertebrate Paleontology of Australasia*. P. V. Rich, R.F. Baird & E.M. Thompson, eds.
Baird, R.F. & Rowley, M., in press. Avian collagen preservation in Australian Quaternary cave deposits. *Paleont.* Baird, R.F., in prep. Fossil avian assemblage of pitfall origin from probable Late Pleistocene sediments in Amphitheatre Cave (0-2), south-western Victoria, Australia.
Baird, R.F. & Rich, P.V., in prep. *Palaelodus* (Aves: Palaelodidae) from the late Cenozoic of Australia.

For RALPH E. MOLNAR, the New Zealand work has turned out to be a disappointment from the point of view of Avian paleontology. The "humerus" turns out to be a pterosaur scapula, not an avian humerus at all. And the endocasts were almost as bad - it now appears that they are probably from some very derived teleost fish.
However, all is not as gloomy as that, as a second avian tibiotarsus has been found in the Lower Cretaceous Toolebuc Formation in Queensland. It appears to be identical in form to the type specimen of *Nanantius* eos, but was found in a new locality. Ralph hopes to write a short note with illustrations later this year.

BULGARIA

At the end of 1988 ZLATOZAR N. BOEV worked for one month on the Upper Pleistocene bird remains collected by Professor N. I. Burchak-Abramovich (Institute of Paleobiology, Tbilisi) from the Binagady locality (Azerbaijan SSR). The whole material was separated into anatomical units and sides. It numbers about 20 000 bones and bone fragments of at least 1983 bird specimens. Two groups of birds are best represented: water birds and raptors.
The study of bird bone remains from the Neolithic site Malak Preslavets (Danube river, Bulgaria) has also begun. Studies of birds from two other archaeological sites have been completed: 1. Roman town Nicopolis-ad-Istrum (2-6 century), and 2. Early Bronze Age settlement near Urdoviza (on the Black Sea coast), both in Bulgaria.
Now Zlatozar is working on a summarising review of Bulgarian archaeornithological findings entitled "Birds from Antiquity in the Bulgarian lands (Neolithic-Middle Ages)". He has continued gathering bird skeletons for the Bulgarian osteological collection, which contains 780 skeletons of 220 bird species.

In 1989 he published the following papers:

1. Morphological characteristics of the adaptations in relation to the getting of food of the herons (Aves, Ardeidae). *Acta zoologica bulgarica*, 37: 49-62.
2. Size variability of herons' wings. *Historia naturalis bulgarica*, 1: 36-44.
3. First proofs of the existence of the Black Grouse (*Tetrao tetrix* (L.)) (Aves, Tetraonidae) in Bulgaria. *Acta zool. Bulg.* 36: 63-71.
4. Morphometric characterisation of the adaptations of herons (Aves, Ardeidae) in relation of their moving on the ground. *Acta zool. bulg.*, 36: 63-71.
5. (S. Simeonov and Z. Boev) A study of the food spectrum of the Eagle Owl (*Bubo bubo* (L.)) in Bulgaria. *Ecologia*, 21:48-56.
6. Osteological features for identification of herons (Aves, Ardeidae). *Acta zool. bulg.*, 36: 56-62.

CHILE

Some years ago VLADIMIR COVACEVICH worked on avian paleoichnology from King George Island, Antarctica, but after that he returned to his normal work with Chilean invertebrate fossils. At the beginning of 1988 he had the opportunity of visiting the same place for a few hours. Unfortunately new specimens were not collected. Since 1971 the outcrops have been actively caved by several scientific, amateur and tourist groups, mainly looking for leaf impressions.
The only new discovery of fossil bird ichnites that he knows correspond to three consecutive foot imprints that were collected during a geological survey sponsored by the Empresa Nacional del Petroleo, ENAP, Chile, with his geologists Jorge Skarmeta, Salvador Harambour, Felipe Urzua and himself, in Tertiary continental beds exposed at the margins of Rio Condor, Tierra del Fuego, Chile, in December 1988.

CHINA

In 1987 a bird fossil skeleton was found in Jiufotang Formation (Jurassic-Cretaceous boundary) Xigou, Meileiyongzi area, Chaoyang City, Liaoning Province, by a farmer called Yan Zhiyou. The bird had a well developed pygostyle but its skull was missing.
In 1988 the scientists and technicians from China and Canada were divided into two teams, the Inner Mongolian team and the Xingjiang team. HOU LIAN HAI was in the first one and his team discovered many well-preserved dinosaurs, lizards, turtles and other reptiles from the Later Cretaceous strata in Rayintu and Erenhot areas, but no fossil birds. Also in 1988, the China-America Tertiary Expedition collected some bird fossils in Miocene-Pliocene, in Yushe, Shansi Province, including rich Galliformes and Passeriformes specimens.
In May 1989, a Pleistocene cave was found in Dacuishan, Huainan, Anhui Province by Han Liggang and Hou Lian Hai, in which very rich fossil birds and mammals occur. Most of the fossil birds are Galliformes and Columbiformes.

Hou Lian Hai finished four papers:

1. A Middle Eocene bird from Sangequan, Xinjiang, Northwestern China: An incomplete left tarsometatarsus representing a new ciconiiform bird, *Eociconia sangequanensis* (gen. and sp. nov.) is described in this paper. It is easy to distinguish *Eociconia* from other genera in the following characters: Trochlea II broad and incline to internal margin; distal foramen on the above between trochlea III and trochlea IV; trochlea III is not arched in distal end of tarsometatarsus; the proximal end of trochlea II is in the same plane as distal foramen and intertrochlear fossa broad.
2. An Eocene bird from Songzi County, Hubei Province: This is an incomplete skeleton with the skull, identified as a new species and genus: *Songzia heidangkouensis*, which represents a new family Songziidae, and belongs to Gruiformes. The new family is one of the oldest in Gruiformes, it has comparatively close relationships with Rallidae, because they have some common characters, for example: flattened skull, straight bills, long tibiotarsus, anterior metatarsal grooves, and so on. However the Songziidae differ from the Rallidae in several characters as following: in lateral view the frontal looks in the shape of an arch. Its external naris is longer. The internal condyle of the tibiotarsus is round and large, the inner trochlea of the tarsometatarsus is longer and does not turn posteriorly. When compared with *Laornis edwardsianus* represented only by a distal end of tibiotarsus, the Songziidae have the following similar characters: the posterior intercondylar sulcus of the tibiotarsus is broad and very shallow and the inner condyle is round. But they have many different structures: tubercle on supratendinal bridge of Songziidae is very developed, internal condyle is large and not projected, internal ligamental prominence is poorly developed, small size.
3. Birds of the Pleistocene of Talien, Liaoning Province: 18 species have been described, including an extinct species, *Tetrastes dalianensis* sp. nov. The most numerous fossil species belong to the Galliformes and Passeriformes orders.
4. Birds of the Pleistocene of Jing Niu Shan, Liaoning Province: 79 pieces or fragments of birds have been classified into 11 families belonging to 16 genera and 17 species (including a new one): *Ciconia* sp., *Aythya* sp., *Aquila chrysaetos*, *Falco* sp., *Francolinus pintadeanus*, *Coturnix coturnix*, *Bambusicola* sp., *Phasianus* sp., *Phasianus colchicus*, *Scolopax rusticola*, *Asio* sp., *Tyto jinniushanensis* sp. nov., *Podoces hendersoni* and *Parus* sp.

CZECHOSLOVAKIA

JIRI MLIKOVSKY is currently working on fossil birds from several Neogene and Quaternary localities of Czechoslovakia and Austria. Of particular interest are the early Miocene locality Dolnice, the middle Miocene locality Frantiskovy Lazne, and the late Miocene locality Hennesdorf. His colleague PETR SVEC, known from his papers on the early Miocene birds of Dolnice, left the field of paleornithology to work in applied agricultural sciences and gave him the fossil bird material he had.

His recent publications on fossil birds and avian evolution are as follows (this is a continuation of this list from the SAPE Information Letter n° 1, 1987):

- Mlikovsky J. (1988) Notes on the brains of the middle Miocene birds (Aves) of Hahnenberg (F. R. G.). Cas. Mineral. Geol. 33: 51-63, 4 pls.
- Mlikovsky J. (1989) A new swift (Aves: Apodidae) from the late Eocene of France. Ann. naturhist. Mus. Wien (A) 90:59-62, 1 pl.
- Mlikovsky J. (1989) A new guineafowl (Aves: Phasianidae) from the late Eocene of France. Ann. naturhist. Mus. Wien (A) 90: 63-66, 1 pl.
- Mlikovsky J. (1989) Brain size in birds: 1. Tinamiformes through Ciconiiformes. Vest. cs. Spol. zool. 53: 33-47.
- Mlikovsky J. (1989) Note on the osteology and taxonomic position of Salvadori's Duck *Salvadorina waigiensis* (Aves: Anseridae (Anatidae)). Bull. Brit. ornith. Club 109: 22-25.
- Mlikovsky J. and P. Svec (1989) Review of the Tertiary waterfowl (Aves: Anseridae) of Czechoslovakia. Cas. Mineral. Geol. 34: 199-203, 2 pls.
- Mlikovsky J. (1989) Birds of the early and middle Pleistocene of Czechoslovakia: the present state and perspectives of research. In: L. Seilt (Ed.): The present state and perspectives of Quaternary research in Czechoslovakia: 63-67. Brno: Moravian Museum and J. E. Purkyne University. (in Czech).

EAST GERMANY

KARLHEINZ FISCHER published two papers on fossil birds in Mitt. Zool. Mus. Berlin, one in 1985 on an Albatross-like bird (*Diomedeooides minimus* nov. gen., nov. sp.) from the Middle Oligocene near Leipzig, the other one in 1987 on an Owl (*Eoglaucidium pallas* nov. gen., nov. sp.) from the Middle Eocene Brown Coal of the Geisel Valley near Halle.

FRANCE

JACQUES CHENEVAL is always very busy teaching in several private schools. He has worked on the relationships between fossil birds and paleoenvironmental conditions. The example from the Saint-Gerand-le-Puy deposits provides interesting data which will be published soon.

Jacques has also begun a study of the Late Miocene birds from the Aljezar deposit, Los Aljezares Formation, near Teruel, in Spain. The excavations of the quarry by R. Adrover in the early 80's provided abundant material containing micromammals associated with some bird remains. In a preliminary study, Jacques recognised a new species of *Tyto*, a few remains of *Cygnus*, and some undetermined species of Passeriformes.

Together with Cecile Mourer-Chauvire, Jacques began studying of the avifauna from the Miocene of Li in Thailand again. New material makes it possible to complete the description of the *Phoeniconaias* species. It also includes the remains of a new species of *Anhinga*, and some smaller forms.

After the publication of the Spanish and Thai avifaunas, Jacques hopes to start the study of a slab, with a nearly complete bird skeleton, from the Pliocene site of Cherasco, in Italy. He also intends to start studying the Charadriiformes and Gruiformes species from Saint-Gerand-le-Puy.

CECILE MOURER-CHAUVIRE is continuing her studies on the birds from the "Phosphorites du Quercy". The monograph on the Upper Eocene locality of Le Bretou, published in Paleontographica, includes the description of a new family of Coraciiformes, the Sylphornithidae, or Sylph-birds. They were very small birds, similar in size to recent Hummingbirds, with very elongated feet. This paper also includes the description of new genera and species of Caprimulgiformes (*Ventivorus ragei*) and Coliiformes (*Primocolius sigei* and *P. minor*).

The revision of the Aegialornithidae (Apodiformes) from Quercy has been published in the Proceedings of the Messel Symposium, in Courier Forschungsinstitut Senckenberg, n° 107.

The description of two new genera and species of Caprimulgiformes, a Frogmouth (*Quercyodargus olsoni*) and a Potoo (*Euronyctibius kurochikini*) was published in the Acta XIX Congressus Internationalis Ornithologici (Ottawa).

Moreover Cecile has revised her manuscript on the Quercy Galliformes, for the SAPE Symposium of Los Angeles. She relied on extra-group comparisons to show what morphological characteristics can be considered as primitive in the extinct families of Quercy compared with Recent families.

Apart from Quercy, she has published a study of two Passerine remains, from the Upper Oligocene of the Centre of France, which are the oldest Passeriformes so far unambiguously known. An almost complete carpometacarpus shows a well-developed processus dentiformis. The morphological characteristics of these two bones made it possible to exclude their belonging to the Deutero-Oscines suborder, and to consider them as relatively advanced forms of the Oscines suborder.

Her paper on the large extinct Peafowl of the Pliocene and Lower Pleistocene of France. *Pavo bravardi*, has been published in Paleontology.

At the present time, Cecile is preparing an overall study of the subrecent vertebrate faunas collected in La Reunion Island in 1987, in collaboration with other specialists for the fishes, reptiles, and mammals. Work in progress also includes the study of some insular avifaunas and, in particular a very interesting one from the Upper Pleistocene site of Akrotiri, in Cyprus.

GREAT BRITAIN

Since contributing to the last information letter, MICHAEL DANIELS has secured a further twenty or so specimens from the Lower Eocene Naze locality in south east England. Many of these are of great interest, the majority undoubtedly new to science. Among them, a skull including upper mandible, length about 60 mm, resembles that of the Jacanidae. At least four others may relate loosely to the Gruiformes/Charadriiformes and one type, of which both himself and Mr. Bergdahl have specimens, bears remarkable similarity to the Haematopodidae, with distinctive bill shape. Once more they have probably added further variants to the established fossil types of *Primobucco olsoni* and *Neanis kistneri*. Knowledge of the paleognath *Lithornis nasi* could be enhanced with data from a specimen obtained this summer.

Again further owl-like birds made their appearance and M. Daniels would really need to check the actual skeleton of *Phoeniculus* with one find rather than speculate, only aided by illustrations, on the possible likeness to that group.

In 1986, collecting from the Naze, he obtained from a pocket of vegetation an extensive range of bird bones which were presumed to be from one individual. Initial examination of the specimen failed to establish any immediate identity, except that the condition of the tarsus signified its zygodactyl state. He was able to take enough measurements of the

various elements to allow comparison to other fossils in the collection and also with modern skeletons. Study of the latter suggested proportional similarity to the Colies, but structural likeness to this modern group or any other, for that matter, could not be regarded as indicating any particular ancestral connection. On another collecting trip earlier this year Mr. Paul Bergdahl secured an extensive specimen. This was a typical Naze bird represented by a jumble of complete, partial and fragmentary bones. Nevertheless eventual extraction and reassembly of the material produced a considerable proportion of the skeleton, including a somewhat distorted but near intact skull with its definitive upper and lower rami (see the illustrations). Cranial attachments comprise fragments of the hyoid, atlas and quadrates, the latter with large apertures in the otic region. More vertebral elements included, again typically, an assortment of cervical, thoracic and caudal oddments together with a partial pelvis. Much of the pectoral girdle was present, also a range of limb bones, some unfortunately disappearing into a lump of impenetrable pyrite. Fragments of the tarsus plus all the phalanges of one foot and two claws, complete the list.

To the information provided by the above two specimens, M. Daniels was able to add that provided by yet a third acquired this spring, this composed of some skull, wing and pectoral elements. With this volume of material, he repeated his comparisons to modern. The overall findings are now offered in the accompanying tables 1 and 2.

TABLE 1.— A survey of three avian fossils, all apparently related, with comparison to modern.

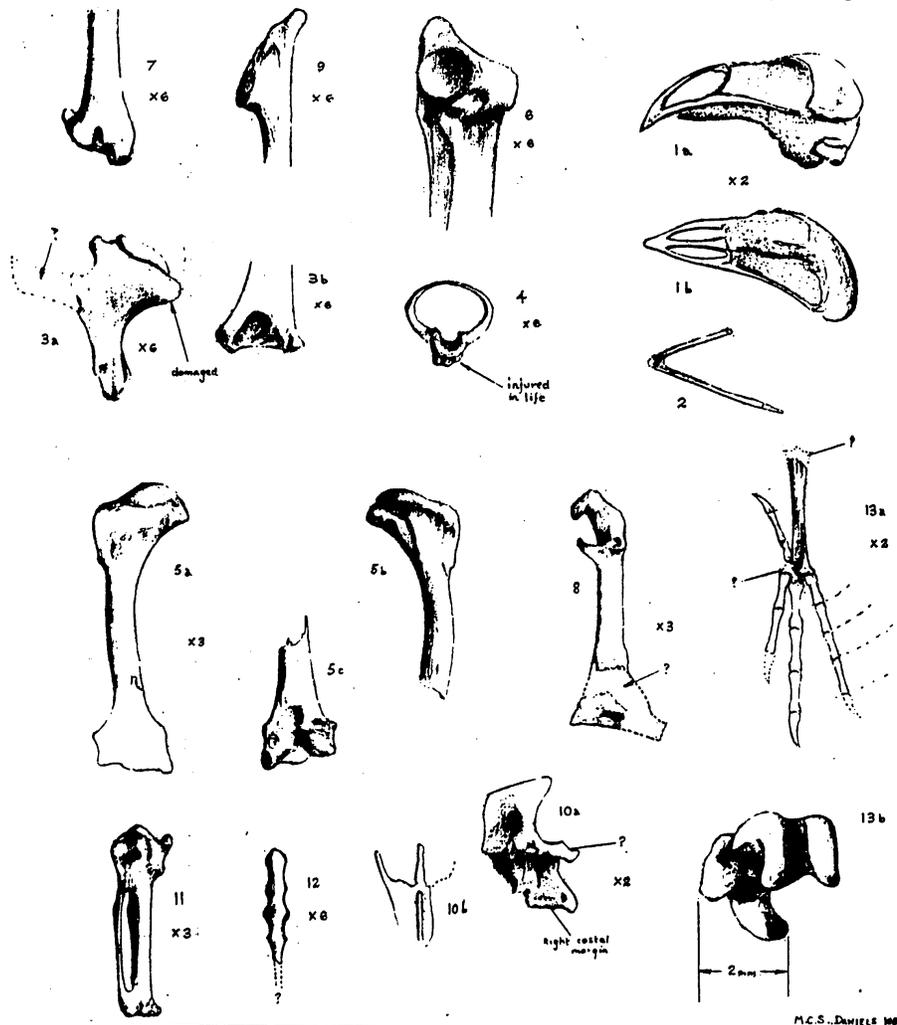
	WN 86540	WN 89606	BC 8917 A	COMMENTS - Comparative etc.
SKULL INCLUDING UPPER MANDIBLE	F Lacrymal NC	F Tip of Premaxilla NC	Somewhat distorted	Like some sub-oscines e.g. Eurylaimidae etc.
LOWER MANDIBLE	SS dentaries both sides	SS Symphysis and both dentaries	SS symphysis, both dentaries present angular on side	As for skull. WN 89606 more robust
HYOID	F	SS Basihyal NC	F	Similar to Eurylaimidae - <i>Colyptomena</i> (i)
QUADRATE	SS Otic half	F	NC Both, most of right	Generally nearest to Passers. <i>Doephila</i> somewhat similar to otic region of BC 8917A. <i>Colius</i> - vague.
ATLAS	SS	-	C	Notched for atlantoid process. In Passerines examined all are perforated, likewise invariably the case with other higher land birds, but notched in <i>Eurytomus</i> examined.
VERTEBRAE	SS Axial C, various cervical thoracic and caudal NC	SS Several cervical and caudal, some NC	SS Various cervical thoracic and caudal some NC	
PELVIS	SS	-	SS much of one side	
STERNUM	SS part of forward end	F	SS much of forward end	Spinae externae not forked, no spinae internae. Somewhat reminiscent of some sub-oscines (i)
CORACOID	NC	NC	NC in length	Small sternal facet. WN 89606 shorter than others - <i>Colyptomena</i> vaguely similar BC 8917A. <i>Colyptomena</i> fair(i), <i>Colius</i> vague, <i>Eurytomus</i> vague.
SCAPULA	NC both	-	NC of right	Somewhat passerlike - Eurylaimidae <i>Colius</i> vaguely similar.
FURCULA	SS	SS both clavicals united	SS	Typically fused clavicals, but none complete to scapula end.
HUMERUS	P = NC and shaft	F	NC complete by combining both	BC 8917A Phoeniculidae, Galbulidae, Eurylaimidae (i) all have some similarity. Colidae - fairly good.
ULNA	P = F D = C with shaft	D = NC	NC of left SS of right	Proximally Coracidae, Galbulidae, Bucconidae, all possible considerations (i) Colidae. proximally fair, distally vague.
RADIUS	P and much of shaft D	P and shaft	P of right D of both	BC 8917A Passerlike, others not distinctive.
CARPOMETACARPUS	Both	NC lacks Mc I, III	P of left shaft SS	WN 86540 Psittidae, Strigidae, Caprimulgidae, all fairly similar.
PHALANGES OF WING DIGIT II	C Phalange I C Phalange II	C Phalange I	C Phalange I	<i>Colius</i> - fair similarity.
FEMUR	P shaft SS	-	C in length, but D imperfect	WN 86540 Capitonidae, passers fairly similar.
TIBIOTARSUS	SS of shaft	-	SS of shaft P imperfect	
TARSOMETATARSUS	NC in length D partial	-	F shaft and distal end	Zygodactyl. Some cuculid characters
PEDAL DIGITS	SS 6 phalanges, of which 5 differ	-	NC all phalanges of one foot, 2 claws examined	Hallux weak in both specimens. Weak in Eurylaimidae, reduced in <i>Colius</i>

ABBREVIATIONS: C = Complete. NC = Near complete. SS = Substantial sections, F = Fragmentary, P = proximal, D = Distal, (i) = Comparative observation based on illustration only.

TABLE 2. Size comparison - fossils to mousebird

	Skull	Coracoid	Scapula	Humerus	Ulna	Carpometacarpus	Digit II Phalange I	Digit II Phalange II	Femur circa	Tibia	Tarsometatarsus circa
WN 86540	24	17-17.8	21-24	23	24.3	13-13.7	6.2-6.8	5.5	21	?	14
WN 89606											
BC 8917A											
<i>Colius sticticus</i>	30.5	21.3	23	23.7	21	13.2	6.5	5.5	22	32	21.5

Figures 1 - 13. Remains of three fossil birds from the London Clay of England.



BC.8917A.

Fig.1, Skull: a, lateral view; b, dorsal view. Fig.2, Lower mandible. Fig.3, Quadrate: a, external view of right; b, otic region. Fig.4, Atlas vertebra. Fig.5, Humerus: a, palmar view of right; b, anconal view; c, palmar view of left. Fig.6, Ulna: palmar view of left proximal end into shaft. Fig.7, Radius: anconal view of right distal end into shaft. Fig.8, Coracoid: dorsal view of right. Fig.9, Scapula: dorsal view of left. Fig.10, Sternum: a, frontal region; b, ventral outline (distorted).

WN.86540.

Fig.11, Carpometacarpus: internal view of left.

WN.89606.

Fig.12, Hyoid, basi-hyal.

WN.86540/BC.8917A. Composite of right foot.

Fig.13, a, posterior view, tarsometatarsus = WN.86540; phalanges and two claws = BC.8917A. b, Tarsometatarsus: distal extremity of right (composite information).

In conclusion, M. Daniels believes shared features throughout the fossils confirm affinity of the three specimens. Though, whilst he would regard WN. 86540 and BC. 8917 A as indicating relationship probably at species level, WN. 89606 would suggest the connection is less distinct.

Even given this extensive evidence, he considers it totally out of question to hazard a guess at what sort of birds these remains portray. Nevertheless, simply based on skeletal proportions and the important skull detail, he offers his very tentative impression of these ancient bird's appearance (fig. 14).

Even if this study achieves no other purpose, he considers it must at least graphically demonstrate the pitfalls of assuming relationships to modern based on solitary elements, indeed partial skeletons, when they are relics of such antiquity.

Finally, he wishes to thank Mr. Bergdahl for making his important fossil available to him.

Also to all those who, reading this account, will surmise that it was to their writings, or the specimens they donated, that reference was made to aid his research; he is much indebted to all concerned.

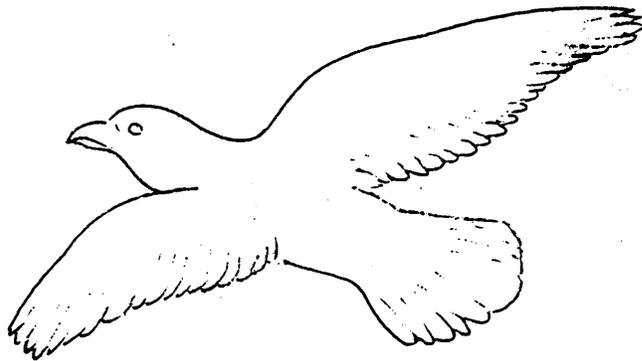


Figure 14. Speculative impression of sparrow size fossil bird from the Naze, lower London Clay of south east England,

Note

Due to the acquisition of a tarsometatarsus and one referable pedal phalange resulting from a Naze visit in September, M. Daniels' attention was drawn to two other related specimens in the collection. One of these was extensive and examination of the material caused him to check this against those which were the subject of the study. He can now state without hesitation that the tarsometatarsus which in the study specimens were of smaller birds and incomplete, now with the benefit of virtually complete elements, are convincingly parrotlike. They compare most particularly with *Neophema splendida* (2 examples) and somewhat less so with *N. chrysogaster* although in size better with the rosellas *Platyercus*.

The significance of the latest findings should only be too obvious, particularly when regarding the skull which he illustrated. But whether the birds are true ancestral parrots, or of some then evolving sister group, just adds another subject for interesting deliberation.

HUNGARY

Data on footprints of fossil birds are very scattered and neglected in paleornithological literature. Therefore D. JANOSSY thinks it is not unnecessary to give an account of some fossils of this nature in Hungary.

The Neogene locality is one of the richest ones in Europe and lies in Northern Hungary, near the village of Ipolytarnoc. The footprints of birds and roaroroals deep in the terrestrial sand and conglomerate are of Eggenburgian age and they are covered with rhyolitic tuff. The absolute age of the last one was determined by K/Ar method as 19.6 + or -1.4 million years.

The locality was discovered in 1900, although the uncovering and inventory of the fossil footprints of the surface of more than 600 m² are pending; the last excavations were carried out in 1988. Among the 2000 footprints, 761 originate from rhinoceroses, 1026 from artiodactyla, 42 from carnivorous mammals and 247 from birds.

The footprints, and among them those of birds, were studied preliminarily by different authors : Lambrecht, Abel, Tasnadi-Kubacska, Vialov, but a monographical description appeared first from the pen of Laszlo Kordos, Paleontologist, the leader of the excavations of the last decade, in *Geologica Hungarica*, Ser. Paleontologica, fasc. 46, 1985. He selected among the

footprints of birds four forms :

1. *Ornithoarnocia lambrechtii* Kordos, with the print of three digits and with a length of 3-4 cm ;
2. *Tetraornithopeda tasnadii* Kordos, of the same size but with a fourth hinder digit ;
3. *Aviadactyla media* Kordos, half size of the former, with three somewhat asymmetric digits ;
4. *Passeripeda ipolyensis*; Kordos, only three footprints of the size of that of a sparrow.

Taking into consideration that bone remains are absent, the systematical position of the prints is unknown.

ITALY

The present and near future projects of ETTORE RANDI on bird phylogenetics are:

1. Galliformes: the multilocus protein electrophoresis data and trees will be checked with data obtained by DNA analysis. He plans to study the relationships within the genus *Alectoris* by means of restriction fragment analysis of mitochondrial DNA. *Alectoris* species (or subspecies) are probably quite recent, and mtDNA seems to be the best molecule at this level. Relationships among genera will be studied by means of ribosomal DNA probes (the conserved, slow evolving region of rDNA), again with the restriction fragment method.

2. Studies on Strigiformes are in progress. *Caprimulgus europaeus* is used as outgroup. Tytonidae and Strigidae are quite clearly separated by enzyme electrophoresis, although the genetic distance between *Tyto* and the Strigidae seems to be rather underestimated. A rough estimate of divergence times is computed using the calibration obtained in Galliformes: 1D = 22 myr. According to these data the divergence time between Tytonidae and Strigidae would be about 34 myr.

3. Samples from more than 20 species of Falconiformes have been collected in his lab, so Ettore Randi plans to study this order both at the protein and at the DNA level.

The Istituto Italiano di Paleontologia Umana, in Roma, has a collection of recent and fossil birds. The fossil birds come from the Quaternary localities excavated by the Institute since A. del Campana (1890-1910), G. A. and A. C. Blanc (1900-1950), and L. Cardini (1930-1970).

At the present time, Pier Francesco Cassoli is studying the fossil avifaunas from the localities of Grotta Romanelli (Puglie), age Upper Pleistocene, and Grotta de Praia a. Mare (Calabria), age Upper Pleistocene and Lower Holocene. A detailed paleontological study of *Alca impennis* from the Mediterranean coast localities is in press in *Quaternaria Nova* (1988) 1989.

NEW ZEALAND

JOSEPH MCKEE has had a fairly quiet year paleontologically with time for fieldwork being somewhat restricted by work commitments and a diversion into the field of fossil turtles. Progress has been made on the bird-bone reference collection and some of the backlog of material requiring preparation has been cleared.

A visit of note to New Zealand was that by Alan Wilson (Berkeley). Alan was in New Zealand to receive his DSc from the University of Otago, Dunedin. While in New Zealand Alan presented a number of lectures on his research in to DNA techniques applied to the elucidation of divergence and phylogenetic relationships in birds and other vertebrates.

Since his appointment, in 1987, as Biologist (Extinct Birds) at the National Museum, Wellington, PHIL MILLENER has taken a special interest in the subfossil avifauna of the Chatham Islands. Extensive collecting from Holocene dune sands and cave deposits have yielded excellent material of several extinct species formerly poorly represented in museum collections - e. g. *Pterodroma magentae*, *Pachyanas chathamica*, *Mergus australis*, *Gallirallus modestus* and *Bowdleria rufescens*. A review of the subfossil and recent Chatham Islands fauna is to be published in 1990, as part of a memorial volume of "Notornis" honouring the late Sir Charles Fleming.

In collaboration with Pierre Jouventin, he is studying a large collection of Amsterdam Island subfossils (late Holocene) which, from a preliminary examination, appears to include several as yet undescribed Procellariiform species.

An overview of New Zealand's Quaternary avifauna is due for publication in late 1989, in "The fossil vertebrate record of Australasia" (2nd ed., Monash University Press).

At the First International Conference on Penguins (Dunedin, August 1988) he presented a paper on Seymour Island Tertiary fossil penguins, and in June 1989, he attended the 50th Anniversary Conference of the Ornithological Society of New Zealand.

His research on subfossil NZ wrens (Acanthisittidae) continues, using as a principal resource material gathered over several years from the South Island Honeycomb Hill Cave system (a site which has yielded the most extensive subfossil avian assemblages [c. 57 species] yet found in New Zealand). An important paper describing the new genus *Pachyplichas*, with two new species, has recently been published (J. Roy. Soc. NZ., Dec. 1988) and the description of yet another new genus is to be submitted shortly. A short paper suggesting that the Stephens Island wren (*Traversia*) was truly flightless (the only passerine to be so) is in press, while a more extensive treatment of the osteology of *Traversia* is in preparation.

RONALD J. SCARLETT and Phil Millener are working on a joint paper -a full redescription of W. R. B. Oliver's *Pachyanas chathamica*, of which Oliver published only a short description, enough to validate the name, but very brief, in the 2nd edition of New Zealand Birds. Ron is still awaiting colleagues to complete their parties for several other joint papers. As he is now 78 years of age, he finds the delay -years in some cases -frustrating.

BEVERLEY McCULLOCH's activities into research on sub-fossil birds at Canterbury Museum have been very limited over the past twelve months because of major reconstruction work at the Museum and the necessity of replacing displays. However, it has given the opportunity to create three life-sized models of "moas" for a spectacular diorama to be opened in 1990. The Museum team however, was able to carry out a further week's excavation at the Cheviot swamp (mentioned in Letter of Information, n° 1, September 1987), locating a major deposit of fossil moa bone together with many preserved gizzard contents. Hopefully they will be able to make a start on the analysis of this within the next year .

The close-packed, but well preserved skeletal remains of several species of medium sized "moas" are excavated from the Cheviot swamp.

POLAND

ZYGMUNT BOCHENSKI has prepared a paper on the remains of *Lagopus atavus* from Kielniki 3B. It also contains a redescription of *Lagopus* material from Rebielice Krolewskie 1 and some general remarks. The paper will be published in Acta Zool. Cracov ., vol. 34. He has continued description of Pleistocene bird remains from Bir Tarfavi. South Egyptian Sahara, the deadline has been prolonged till October 1989. The preliminary report about fauna from that locality is in press (Kowalski et al.). Together with his son Zbigniew, he prepared a paper "Correlation between standard measurements of living birds and measurements of their bones" presented by Zbigniew at the 3rd International Congress of Vertebrate Morphology, Antwerp, 1989. The phenomenon described in it can be useful in determination of bird bones.

ZBIGNIEW BOCHENSKI has finished his papers on the diet of the tawny owl as well as on the Pleistocene bird remains from Dziadowa Skala. Both of them are in press in Acta Zool. Cracov ., vol. 33. He has also continued determination of bird remains from Oblazowa Cave and has started studies on comparative osteology of European grebes (Podicipedidae).

TERESA TOMEK has continued her work on the osteology of European Corvidae as well as determination of some very rich Holocene material from Duza Sowa Cave.

The collection of recent bird skeletons of the Institute has increased. It consists of 741 species represented by complete skeletons (many of them in series) and 28 species represented by partial specimens.

SPAIN

LLUIS GARCIA I PETIT published in 1987 the study of the bird bones from a prehistoric cave (Agusti B. et alii : Dinamica de la utilitzacio de la Cova 120 per l'home en els darrers 6000 anys. Girona 1987). At present he is studying the bones from the paleolithic levels of the same cave. He is also working on the remains from the Cova de l'Arbreda (Serinya, Pla de l'Estany), one of the most important sites in Catalonia, with a 12 meter stratigraphy from the Middle and Upper Paleolithic. He is also studying the bird remains from the epipaleolithic and neolithic levels of the Cova de la Guineu (Alt Penedes). He is also trying to make up a reference collection which would allow him to study the bird bones in Barcelona (for the moment he has to do it in Paris).

SWEDEN

TOMMY TYRBERG has been engaged for the last few years in a study of the biogeography of the Palearctic avifauna, in relation to the Pliocene and Pleistocene fossil record. The first result of this is a paper on arctic/alpine and steppe birds with disjunct ranges in the West Palearctic which will be published during 1989. He is also working, together with PER ERICSON of the National Museum of Antiquities, on a monograph on the fossil and subfossil (mostly subfossil!) birds of Sweden. They have now collected all(?) available published and unpublished records and are now analyzing the material and writing up the results. It is already clear that many records need revision, including both the two late-glacial records of Harlequin Duck (the only ones ever reported from Europe). One of these is probably a Goldeneye and the other perhaps a Long-tailed Duck, though more comparative material of *Histrionicus* is needed for absolute certainty. However completion of the monograph will be delayed until next year, since Per Ericson recently left to spend a year at the Smithsonian where he is going to work on the relationships of *Presbyornis*. For the biogeographic study he mentioned above, he has tried to collect as much data as possible on Pliocene and Pleistocene avifaunas from the Palearctic. This summer he had plenty of time for paperwork since he broke a leg birding in SW China in May. He has used some of this spare time to put most of his collected data on Palearctic Pleistocene birds into DBASE for greater accessibility. It has been quite a job since it comprises more than 1000 sites, many of them multilayer, but it will make it much easier to access and analyze the material.

UNITED STATES

Boulder

The present research projects of KARL F. HIRSCH are on Eocene, Oligocene and modern eggshells.

In the Eocene he studies :

1. ?Pre-crane eggs and eggshell fragments from different localities. Two of the eggs contain embryonic remains of different developmental stages.
2. Eggs, Eggshell fragments and a few avian bones from a nesting site on a sandy shoreline of a river, island or lake.
3. Thick eggshell fragments (1.2 to 1.5 mm) with a smooth or heavily sculptured outer surface, perhaps belonging to *Diatryma* eggs.

In the Oligocene he works on eggshell structures of four types of avian eggs of different size and shape.

The projects on modern eggshells may help to understand and recognize pathology and the effects of diagenesis in eggs of the fossil record. 1. Diagenetic changes of the microstructure of avian eggshell caused by volcanic ash (Eruption of Mount St Helen). 2. Effect of DDT and Lead on the microstructure of condor eggshell. Follow-up on eggs of one specific condor female over 15 years. 3. Modern pathological eggshell.

Gainesville

Recent activities by STEVE EMSLIE included a visit to a new fossil discovery in Florida. In spring, 1989, an amateur paleontologist reported this new find to personnel at the Florida Museum of Natural History, Gainesville. The Late Blancan site was uncovered by mining operations in a shell pit near Sarasota. It consists of hundreds of bones, with many partial or complete associated skeletons, of one species of cormorant. The preservation of this material is excellent; complete skulls and bills are present as well as all major

limb bones. All of the bones are from adults and it appears that the site formed either from natural deaths near a breeding or roost area, or from a catastrophic event. Steve worked at the site for a week, with the help of amateur paleontologist Phil Whisler and personnel from FLMNH. The site is extensive but most of it will be destroyed by mining operations. Steve is now applying for funds to continue excavations at the site in an area that will not be mined. Taphonomic investigations will be a primary focus of the study. The fossil cormorant is large, similar to modern *Phalacrocorax auritus*, but represents an extinct species. Detailed systematic comparisons at several museums are needed before it can be determined if this material represents a new, or previously described, species. The remainder of Steve's work has been a continuation of projects on breeding seabirds at S. E. Farallon Island, California, for Point Reyes Bird Observatory.

Lawrence

During the summer LARRY MARTIN visited the Paris Natural History Museum and the British Museum (Natural History) where he studied specimens of Gastornis and Archaeopteryx. He and Mary Tanner are constructing a 3-dimensional model of the London Archaeopteryx specimen. Their goal is to use the model to answer questions about posture and locomotion. It is clear that Archaeopteryx had a very different posture than other groups of birds and was not adapted for running.

BRAD LIVEZEY has recently published a paper on subfossil Anseriformes of New Zealand and is continuing his studies of flightlessness in birds.

PHIL HUMPHREY and PAM RASMUSSEN are studying sub-Recent birds from Tierra del Fuego.

BOB CHANDLER's study of the San Diego Formation fossil birds is now in press and will be published in the AOU Monograph series (n° 44). Bob is interested in the Bathornis "entanglement" with new material from California and Nebraska to study. Also he is studying an Early Miocene tinamou from Argentina.

Los Angeles

HILDEGARDE HOWARD hopes that her paper describing a new species of Anseriformes from the Middle Miocene of Sharktooth Hill Bonebed in Kern County, California, will be soon published in the Proceedings of the SAPE meeting of Los Angeles, Kenneth Campbell, Editor. Since writing that paper, she has been working with Joan Brown off and at the L. A. Museum, sorting and identifying avian specimens from the Middle Pleistocene Vallecito Creek beds in the Anza Borrego Desert, California.

KENNETH E. CAMPBELL informs the SAPE members that the processing of the Symposium volume of 1988, to be dedicated to PIERCE BRODKORB, is proceeding more or less on schedule. A difficult summer slowed work on the volume, but editorial activity is again in full gear and all authors should expect to hear news of their papers soon. Forty-five papers were submitted for the volume, or approximately 1300 pages, plus about 275 figures and 75 tables. All papers not already returned to authors for revision should be by the end of November. The target date for publication is still September, 1990. The only other fossil bird item that Kenneth can report is that he has several specimens of an undescribed gigantic anhinga from the Miocene of Brazil that he hopes to get out soon. During a brief visit in Europe in June, he was warmly received by Cecile Mourer-Chauvire and Stefan Peters and their families and he thanks them both very much for their gracious hospitality.

San Francisco

SYLVIA HOPE is preparing a publication from her thesis work on osteology and phylogeny of corvids. Also she is beginning description of a collection of some 25 avian fragmentary fossils from the Lance Formation in Wyoming. These were collected by field parties from the American Museum of Natural History over the last 20 years, under the direction of Dr. Malcolm McKenna. Of particular interest in the collection are a large femur lacking its distal end, a large proximal humerus, one very small, partial second cervical vertebra, and a partial sternum including coracoid facets. The rest consists of a variety of smaller pieces from longbones, Coracoids, and scapulae.

Washington and Princeton

In July, PETER HOUE and STORRS OLSON had one of their most successful collecting trips yet in the late Paleocene/early Eocene badlands of the Clark's Fork Basin in Wyoming. Every day produced one or more limestone nodules with significant bird fossils, in addition to which several complete eggs and numerous excellent mammal fossils were also collected. In all, they shipped back over 1000 kilos of rock to Washington. Unfortunately, the Smithsonian's acid lab has been out of commission for over two years, with no indication that the administration will act soon to make promised renovations. Furthermore, there are no longer any personnel who are permitted to prepare fossil birds, so it will probably be many years before these wonderful specimens will be freed from their matrix and exposed for study.

PER ERICSON, of the Statens Historiska Museum, Stockholm, has joined the Smithsonian for a year on a postdoctoral fellowship through the Swedish Academy of Sciences. He will be undertaking a revision of the systematics and morphology of Presbyornis.

JEFF BICKART paid two visits to Washington to finish up a study of a small but interesting Miocene avifauna from diatomites of the Truckee Formation of Nevada.

HELEN JAMES and STORRS OLSON continue their work on the fossil avifauna of the Hawaiian Islands, having recently completed and submitted a manuscript describing 32 new species. They are enthusiastic about continuing collaboration with Tom Stafford in getting highly refined radiocarbon dates on bone and also about collaborating with David Burney on palynological analyses of flightless "goose" coprolites from caves on Maui.

While recently comparing a specimen of cathartid-like bird from the Willwood Formation with the holotype of *Neocathartes grallator*, PETER HOUE discovered a very close similarity of the latter to yet another specimen from the Willwood Formation, which he previously referred tentatively to the Phorusrhacidae (Publ. Nuttall Ornith. Monogr. n° 22). This new specimen consists of an intact wing, premaxilla, and pedal phalanges. It provides support for Olson's treatment of Neocathartes as member of the Bathornithidae, rather than of the Cathartidae. It also makes him suspicious that European Phorusrhacids could actually be terrestrial Gruiformes that are close to the South American Phorusrhacidae, but not part of the same monophyletic group.

Peter Houde is engaged in DNA hybridization experiments at Princeton University to test whether *Aramus* and *Heliornis* are closer to each other than either are to the two Old World heliornithids, *Podica* and *Helionais*, as suggested by Sibley and Ahlquist. If Sibley and Ahlquist are correct, then it would have a powerful impact on our interpretation of fossil birds it would mean that morphological reversals could be so profound as totally obscure evolutionary history. Rest at ease, his experiments indicate that Sibley and Ahlquist made a mistake. *Aramus* is the sister of the Gruidae, not the Heliornithidae.

JONATHAN BECKER has moved back to Washington, D.C., and can be contacted at the Division of Birds, National Museum of Natural History, Smithsonian Institution, 20560. From the end of February until early in April, he spent 5 weeks in the Seychelles, collecting fossil birds on Aldabra Island. He extensively collected one new locality in limestones that produced a good sample of Pleistocene gadfly petrels. The remaining time on the island was spent searching for younger deposits, with little success. Dune deposits were unexpectedly barren, perhaps due to nesting activity of great numbers of sea turtles using this limited habitat.

URSS

Leningrad

G. F. BARYSHNIKOV and O. R. POTAPOVA prepared, in 1988, a paper on "The Crimean Birds of the Paleolithic (USSR)" for the SAPE congress in Los Angeles, giving a survey of all Pleistocene birds from the Middle Paleolithic up to the Mesolithic.

In 1988 they collected fossil birds (primarily Passeriformes) from the Paleolithic caves of Northern Caucasus and, in 1989, they took part in excavations of the new Mousterian

cave Mezmaiskaya, situated in the mountains of Western Caucasus, at 1350 m above sea level. Here they gathered abundant and interesting material where the bones of Passeriformes, especially Pyrrhocorax, are predominant.

They also studied the material from the 1964 to 1969 excavations in the Mousterian site of Il'skaya 1 near Krasnodar. Some bones of large birds were found, which is rare for Mousterian open-air sites in European USSR.

Their paper on Pleistocene Birds from the Paleolithic sites of Crimea, in Russian, was published in February 1989 in the Proceedings of the Zoological Institute of the Academy of Sciences, vol. 182.

O. Potapova has also studied the Pleistocene birds from the Paleolithic sites of Northern Ural.

After the study of terrestrial and estuarine palaeoenvironments of the Middle and Late Jurassic in NE Ferghana Valley (Kirghizia), LEV A. NESSOV got the idea of the origin of flight in the transition stage from reptiles to birds. This hypothesis was named "acquisition of flight by jumping from the ground to the trees".

It is known that the climate of Early and pre-Bathonian Middle Jurassic in large parts of northern continents was moderately cool, humid or extrahumid, but from Bathonian to Callovian there were aridization and a rise in temperature. After these changes of the climate, savannah-like environments spread over Europe and western Asia. Progressive development of scales and prefeathers of bird ancestors were under the influence of natural selection that led to the creation of effective isolation from the heat of the sun in open biotopes. Differentiation of barbs of the I order and dermal muscles that moved prefeathers appears at this stage of evolution. These terrestrial biped pre-bird dinosaurs with effective thermoinsulation had some advantages over common small theropods on hot days and hours but all these advantages were lost in the situations after cold weather, when common theropods warmed up more rapidly. Some ability of proavians to produce and keep the heat under the cover of prefeathers was improved under the natural selection and led to increased independence from the fluctuation of the temperature in the environment.

Material from Bathonian and Callovian of the Ferghana showed that small- and middle sized theropods were abundant in or near biotopes with rarefied conifer forest. Some small theropods that usually fed on the ground acquired the possibility to escape from larger and stronger predators by running and then jumping onto the trees. Each additional centimeter of the height of such jumps might be salutary for this pre-Tithonian bird predecessor that had ability to do several vigorous but primitive flaps by forelimbs. The most important stage of evolution began after the appearance of barbs of II order and hooklets when true feathers, true wings, and the first member of the class Aves appeared. If so it is possible to find the remains of proavians or early birds in Bathonian-Kimmeridgian of Eurasia. The finding after the prediction might make it possible to verify the hypothesis. In June 1989, L. A. Nessov and A. V. Pantelev made short reconnaissance for future bird searching in the Upper Albian and Cenomanian of large quarries in the Belgorod District. The level with mangrove-like remains of near shore or sandbank forests was found in Cenomanian.

Parts of bodies of ichthyosaurs and floating hollow pterosaur bones were caught on the net of roots and sprouts of these presumably angiosperm plants damaged by teredinid molluscs. The bones were buried in the sand of the sea that had very high productivity. This level is favourable for further attempts to search for bird remains.

The study of shark assemblage with jaw of bird *Volgavis marina* Nessov and Jarkov 1989, from Malaja Ivanovka, in Volgograd District, and new work of A. A. Jarkov in the locality. Showed that actually these remains are not Early Paleogene but Latest Maastrichtian in age. So this bird lived in the same region of the same sea as azhdarchid pterosaurs known in Maastrichtian of Volgograd and Penza Districts. Azhdarchids are the last group of the order Pterosauria (known from Late Turonian to Late Maastrichtian). They had very rigid, long necks and were fish-eating forms that caught their prey in flight by long, toothless, straight or gently curved jaws. These pterosaurs were large and giant forms that lived near the boundaries of forested coastal plains and estuaries with high bioproductivity. The frigate-like bird *Volgavis marina* was the same size as a marine gull and had a large hook on the bill; this hook was oriented downwards and possibly facilitated the seizing and grasping of food from the surface of the water. It is important that all known azhdarchids lacked any hook on the bill. Maybe these pterosaurs became extinct not only because of the changing of abiotic situation near the boundary of Cretaceous and Paleogene. But also because of competition of azhdarchids in their youth with small near-shore and forest birds, and in their maturity with relatively large marine birds which appeared during the Maastrichtian.

In spring of 1989, in anomalous cold weather, A. O. AVERJANOV and O. R. POTAPOVA found the new locality of Zhylyga II, near the railroad, with a Thanetian bird carpometacarpus. They also noted Thanetian bird bones in old Darbaza quarry in the same area near Tashkent. Also in 1989, A. O. AVERJANOV discovered in the scientific storehouse of the Zoological Institute, at Leningrad, part of the fish collection of A. S. Rogowich containing the ulna and humerus of a Late Eocene charadriiform bird from Kiev, that were illustrated by Rogowich in his paper of 1873. These remains were the first bird bone material in the history of paleornithology of our country. Now this material is under additional study by Averjanov, Potapova and Nessov.

In August 1989, A. V. Pantelev and A. O. Averjanov found new series of large, middle-sized, and small bird bones in an Upper Eocene locality (Dzheroy II) in the Central Kizylkum Desert. Parts of jaws of Pseudodontornithid birds are in the collection.

In September 1989, L. A. Nessov, D. V. Logunov, A. O. Averjanov and their field assistants in the Coniacian (Late Cretaceous) of the Dzhyrakuduk locality in Kizylkum, found vertebra of an Ichthyornithiform the size of a thrush (fieldfare), part of the sacrum of another ichthyornithiform approximately the size of a cormorant, also the sacrum of a new species of *Zhyaornis*, part of the strange flat sacrum of a small new bird and more than 40 other Cretaceous bird bones.

Moscow

The palaeornithologists of the Palaeontological Institute in Moscow are continuing the current work on the previous investigations. A. KARKHU is finishing his study of fossil swifts. This summer he dissected fixed specimens of modern swifts and hummingbirds for transposition to extinct forms. And to study their functional morphology, so he prepared a LOT of drawings.

K. MIKHAILOV is now continuing his investigations of fossil eggshells of dinosaurs and birds, and is creating a collection of recent bird eggshells. He is beginning comparative investigations of eggshells structure of the separate orders of recent birds; for example Falconiformes. He spent two and half months in Mongolia, where he was occupied on the excavations of some Cretaceous localities.

E. KUROCHKIN is continuing his investigations on the Cretaceous birds from Mongolia. On the 20th Jubilee of the Soviet-Mongolian Paleontological Expeditions, he presented a paper, in coauthorship with A. Karkhu, on the main stages in bird evolution. In August he spent two weeks, together with his daughter, in the home of his friend Peter Ballmann, in Köln (West Germany). He is glad to inform all colleagues that Peter is continuing his investigations on fossil birds. Now he is preparing a paper on the Calidritinae from the Miocene of Nördlinger Ries. Peter and he spent a lot of hours remembering the time, 21 years ago, when Peter was for six months in the Soviet Union. In September E. Kurochkin will go to Mongolia for the Jubilee Conference and for a short field trip in the Gobi Desert.

Tbilisi

N. I. BURCHAK-ABRAMOVICH has described, in collaboration with Mrs C. M. ASLANOVA, a new family, Caspiodontornithidae, which belongs to the Odontopterygiformes order. The holotype skull was presented in Moscow during the XVIIIth International Ornithological Congress. At the present time he is describing, in collaboration with Aliev, a new species of *Gallus* from the Acheulean of the Azykh Cave, on the Karabach Plateau.

WEST GERMANY

ANDRZEJ ELZANOWSKI submitted the paper on the palate and braincase of *Hesperornis* to Postilla and is about to submit (with Peter Galton, University of Bridgeport, CT) the paper on the braincase of *Enaliornis* to JVP. At present he is summarizing his ideas on the morphology of adductor mandibulae (part of which were presented in August at the Third International Congress of Vertebrate Morphology in Antwerp) and on the origins of tinamous (as outlined in September at the Symposium on the Ecology and Morphology of Tropical Birds, in Cologne).

In response to the ongoing massive abuse of non-human vertebrates, Andrzej has developed a theoretical interest in the evolution of mental and sensory experience in birds to gain insights into their susceptibility to various forms of suffering. He is now employed in a protein sequence databank and does ornithological research in his spare time only.

Changes of address of SAPE members

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This information letter has been compiled by Cecile Mourer-Chauvire, Secretary of the SAPE. A contribution of ten U.S. dollars, by personal check or any other means, except sending banknotes by mail, which is prohibited in France, will be gladly accepted by the Secretary to assist in defraying mailing expenses.
