

SOCIETY OF AVIAN
PALEONTOLOGY AND EVOLUTION

INFORMATION LETTER

n° 11, October 1997

Secretary: Cécile Mourer-Chauviré
UFR des Sciences de la Terre
Université Claude Bernard - Lyon 1
27-43 Boulevard du 11 Novembre
69622 Villeurbanne Cedex FRANCE
Fax : (33) 4. 72. 44. 83. 82
e-mail: mourer@cismsun.univ-lyon1.fr

The SAPE has just received the information that N. I. BURCHAK-ABRAMOVICH, from Tbilissi, died at the end of October, at the age of 97. All the Avian Paleontologists are sadly affected by his death.

J. Phillip ANGLE, Collection Manager, and James DEAN, Collection Support Staff, send the following information concerning the upcoming shut-down of the entire collections, offices and library of the Division of Birds, National Museum of Natural History, Washington, D.C.:

“Beginning as early as **January 15, 1998**, the entire collections, offices and library of the Division of Birds and the Biological Resource Division (formerly the National Biological Service) housed in the National Museum of Natural History are scheduled to be closed for major renovation to our antiquated heating and cooling system. The renovation is expected to require six months to a year to complete, during which time these facilities will be totally inaccessible to staff and visitors. The collections will be covered with plastic and sealed. Those bird collections housed at the Museum Support Complex at Suitland, Maryland will remain accessible. The MSC collections include eggs and nests, some mounted birds, larger anatomical (wet) specimens and a very few study skins. A list of species housed at MSC is available on our web site at <http://www.nmnh.si.edu:vert:birds>

During the months before the actual “exodus”, all collection-based activities, such as preparing loans and other transactions, visitor use of the collections (and library) and most information requests will slowly cease as we move offices and research material.

LOAN RETURNS: All borrowers who can complete use of their current loans are requested to return them as soon as possible. Because of the limited number of museum storage cases available to us during our “exodus”, anyone retaining borrowed specimens will be asked to hold them until after we have returned to the Bird Division proper in 1998 or 1999.

LOAN REQUESTS: We are establishing a cut-off date of **November 15, 1997** for the request of new loans.

VISITORS: Tentatively, **01 January 1998** will be the last day that the Division will accommodate visitors to the

collections or library, but anyone planning to visit in late 1997 is urged to contact us beforehand to determine if all sections of the collection or library are available for use.

In addition to calling or writing for further information, you can contact the following collection management staff through e-mail:

J. Phillip Angle e-mail anglephil@nmnh.si.edu
James Dean e-mail dean.james@nmnh.si.edu

Requests for new loans should be directed to Dr. Storrs Olson (Smithsonian) or Dr. Richard Banks (Biological Resource Division Service)."

POSITION AVAILABLE

In November 1999, Cécile Mourer-Chauviré will be sixty years old, and she will resign from her position of Secretary of the SAPE at the time of the Beijing Congress, in 2000. She would like if the SAPE members could from now on think about who would replace her. It would be probably better for the secretary/editorship to stay in Europe. The society might lose its international flavour if the headquarters moved to the United States. However Cécile intends to prepare the two next SAPE Information letters, in 1998 and 1999, and the nomination of the new secretary can be planned during the Business Meeting of the next SAPE Symposium.

NEWS FROM THE MEMBERS

AUSTRALIA

Walter BOLES took part-time leave for the first six months of the year to work on ongoing and new studies. Most of his work has dealt with birds from the Oligo-Miocene and Pliocene deposits from Riversleigh. Several studies that have been in progress for a long time are at their final stages, including descriptions of a flightless rail (*Gallinula*) and a large swiftlet (*Collocalia*). A study on a stork has been expanded into a review of all ciconiid material from Australia, including the Plio-Pleistocene *Xenorhynchus nanus* named by C.W. De Vis. Honeyeaters (Meliphagidae) have been identified from the Pliocene and several bones from Oligo-Miocene sites also appear to be referable to this family. A large passerine from the Miocene has been assigned as a new genus in the Oriolidae.

The other site under study is the Early Eocene deposit at Murgon. An additional passerine bone (small tibiotarsus) has been recovered. Two, probably at least three, taxa are present that represent either the Graculavidae or the Presbyornithidae. The bones are fragmentary and, in the absence of cranial material, it may be prudent to assign them to the Graculavidae.

BAIRD, R. F. and VICKERS-RICH, P. 1997. *Eutreptodactylus itaboraiensis* gen. et sp. nov., an early cuckoo (Aves: Cuculidae) from the Late Paleocene of Brazil. *Alcheringa*, 21: 123-127.

BOLES, W.E. 1997. A kingfisher (Halcyonidae) from the Miocene of Riversleigh, northwestern Queensland, with comments on the evolution of kingfishers in Australo-Papua. *Memoirs of the Queensland Museum*, 41: 229-234.

BOLES, W.E. 1997. Riversleigh birds as palaeoenvironmental indicators. *Memoirs of the Queensland Museum*, 41: 241-246.

BOLES, W.E. 1997. Hindlimb proportions and locomotion of *Emuarius gidju* (Patterson & Rich, 1987) (Aves:

Casuariidae). *Memoirs of the Queensland Museum*, 41: 235-240.

BOLES, W.E. 1997. Fossil songbirds (Passeriformes) from the Early Eocene of Australia. *Emu*, 97: 43-50.

BULGARIA

The activities of Z. BOEV were as follows:

- Inventoring of the collection of fossil and subfossil birds of Bulgaria at the National Museum of Natural History in Sofia. Total number of items by 3 July : over 8400.

- Organization of the new exposition (2nd stage; *Hipparion's* fauna) of the Asenovgrad Paleontological Museum - a branch of the National Museum of Natural History in Sofia.

- New expositions of Sturnidae, Dicruridae, Pittidae and Fringillidae in the National Museum of Natural History in Sofia.

- Collecting of over 30 new avian fossils from the Middle Villafranchian site near Varshets (mainly belonging to an undescribed small phasianid of the subfamily Perdicinae).

BOEV, Z. N. 1996. Gamefowl in Bulgaria over the last 8.000 years. In BOTEV N. (Sen. ed.) : *Proceedings of the Intern. Union of Game Biologists. XXII Congress "The Game and the Man"*, Sofia, Bulgaria, Sept. 4-8 1995. Pensoft Publ. Sofia, Moscow, St. Petersburg, 398-401.

BOEV, Z. N. 1997. The Alagoas (Eastern-Brazil Razor-billed Curassow *Mitu mitu* (L.)), a world rarity in the collection of the National Museum of Natural History, Sofia. *Historia naturalis bulgarica*, 7: 105-108.

BOEV, Z. N. 1997. Stuart Baker's collection of birds in the National Museum of Natural History, Sofia. *Historia naturalis bulgarica*, 7: 5-12.

BOEV, Z. N. 1997. The birds from the Roman settlement Arbanas 1 near Pernik (in Bulgarian). *Historia naturalis bulgarica*, 7: 28.

BOEV, Z. N. 1997. Falconry in Bulgaria - History and Significance. In: *7th Scientific Session of Biological Faculty*, St. Kliment Ohridsky University, May 1997, Sofia, Programm and summaries, p. 38.

BOEV, Z. N. 1997. An attempt for an ornithofaunistical and ornithogeographical characterization of Bulgaria. In : *Biodiversity and Ecological problems of Balkan Fauna*. Sofia, 26-29 May 1997, Abstracts. Institute of Zoology - BAS, Sofia, p. 55.

RIBAROV, G. and BOEV, Z. 1997. Bone remains of wild and domestic animals from the Telish-Redoutite prehistoric settlement near Telish (Pleven District) (In Bulgarian, English summary). *Historia naturalis bulgarica*, 7: 61-70.

CHINA

Lianhai HOU is working on the study of Mesozoic birds, and published one book and some papers.

For the SAPE meeting in 2000, Lianhai HOU, Zhonghe ZHOU, Fucheng ZHANG and their coworkers made the field work in Liaoning province in spring this year. In China there are many issues about the age of the Yixian formation. The fossil material of that site includes *Sinosauropteryx*, dragonflies, and a small primitive mammal, very like that of Solenhofen. Chen Peiji, Dong Zhiming and Zhen Shuonan think that *Sinosauropteryx* is not a bird and belongs to *Compsognathus*. Their paper will be published in *Nature* (October) this year.

A fossil exhibition was held from 1 January to 1 March this year. The material includes *Confuciusornis*, *Liaoningornis*, *Cathayornis*, and other fossil birds from Mesozoic to Cenozoic.

A Paleontological Bird Museum is prepared to be constructed in Beipiao city, Liaoning Province. The exhibition area will be more than 2000 m².

Zhonghe ZHOU is entering his third year of Ph.D. program with Prof. Larry MARTIN at the University of Kansas. Hopefully he will be done in two more years. Earlier this year he and Lianhai HOU finally wrapped up the first draft of a manuscript for the book on Mesozoic birds by CHIAPPE and WITMER. It should be a reader-

friendly historical review of the recent findings of early birds in China. Fancy cladograms are unfortunately not provided. He worked with Larry on a short paper on the comparison of the skulls between the enantiornithine *Cathayornis* and *Archaeopteryx*. Hopefully it will be out this year. He did a book review on Feduccia's book (1996) for the Chinese readers, and tried to be neutral on all the hot controversies. Also earlier this year he contributed a paper discussing the relationship of cladistics with Popper's philosophy for a book in memory of C. C. Young, the late Chinese father of vertebrate paleontology.

This summer he was able to be back to China for about one month. He went to the field in Liaoning, northeast China and learned a lot more new information about the localities. He was able to examine the "feathered dinosaur" in Nanjing with the help of Prof. Chen Peiji. The *Confuciusornis* site has been somewhat protected, though not very much in a scientific way. Liaoning has become a hot area for many paleontologists and geologists. He enjoyed his trip very much. Prof. HOU has been very kind and consistently helpful. He was also very delighted to meet and work together with Dr. Zhang Fucheng, the postdoctoral at IVPP.

He was able to talk to the authorities at the Institute of Vertebrate Paleontology and Paleoanthropology (IVPP) about the 2000 SAPE meeting. People seem to be quite enthusiastic about holding the first SAPE meeting in Asia in the first year of the new millennium. Prof. Ye Jie, the deputy director of IVPP, spent about two hours discussing with him about the blueprint of the 2000 meeting. An optional visit to the famous *Confuciusornis* locality is under serious consideration. Prof. Ye is not only very supportive but also optimistic about the future of the fund raising for the meeting. The first circular letter will probably be sent out early next year. Other good news may include: Prof. HOU, although retired, is still active in his research work. The postdoctoral, Zhang Fucheng, is young and energetic and should also be of great help when the meeting is held.

HOU, Lianhai, MARTIN, L. D., ZHOU, Zhonghe and FEDUCCIA, A. 1996. Early adaptive radiation of birds : evidence from fossils from northeastern China. *Science*, 274: 1164-1167.

HOU, Lianhai 1996. The Mesozoic birds of China. *Science Foundation in China* (Bulletin of the National Natural Science Foundation of China), 4 (1): 36-37.

HOU, Lianhai 1996. A carinate bird from the Upper Jurassic of Western Liaoning, China. *Chinese Science Bulletin*, 42 (5): 413-416.

HOU, Lianhai 1996. On the study of *Confuciusornis*. *Bulletin of the Chinese Academy of Sciences*, 12: 62-63.

CZECH REPUBLIC

In January-February Jiri MLIKOVSKY was short term fellow of the Smithsonian Institution in Washington, D. C. He is much obliged to Storrs Olson, Helen James, and other ornithologists in Washington for their hospitality. This visit was extremely helpful. He returned with many new data, particularly on the Neogene birds of Central Europe. Records of particular interest include *Upupa* sp. and a new rostratulid from the Early Miocene (MN 3 and MN 4, respectively) of the Czech Republic, a new giant barn owl from the early Miocene (MN 2-3) of Germany, and *Neotis* sp. from the late Miocene (MN 10) of Austria.

He agrees with the Editor, that SAPE Bulletin is not a publication, so that new scientific names should not be applied in individual reports. On the other hand, he thinks that individual reports in the Bulletin can be understood as "personal communication" to all SAPE members, and that they can be - in this sense - cited in literature. In any case, this applies to all his reports published in the Bulletin.

MLIKOVSKY, J. 1996. Early and middle Pleistocene birds from the Bohemian Karst, Czech Republic. *Acta Societatis Zoologicae Bohemicae*, 66: 187-190.

MLIKOVSKY, J. 1997. Taxonomic identity of *Fringilla radoboyensis* VON MEYER, 1865 (Aves) from the Middle Miocene of Croatia. *Annalen des Naturhistorischen Museums in Wien*, 98 A: 143-149.

MLIKOVSKY, J. 1997. A new tropicbird (Aves: Phaethontidae) from the Late Miocene of Austria. *Annalen des Naturhistorischen Museums in Wien*, 98 A: 151-154. [*Heliadornis paratethydicus* new species, Late Miocene, MN 10, of Vösendorf, Austria].

FRANCE

Since the last Information Letter, Cécile MOURER-CHAUVIRÉ took part to field works in La Réunion in November 1996. Then she had a very hard work to revise her manuscript for the SAPE Proceedings. In the same time, in a new fossiliferous locality in La Réunion, known as “Caverne de la Tortue”, were found the remains of a new species of extinct rail, belonging to the genus *Dryolimnas*. The description of this new species has been added to the manuscript. It is very likely that this rail is the species mentioned by Dubois, in 1672, as “Râle des bois”. Cécile has pursued her work on the Middle Pleistocene avifauna from Corsica, with the fossil material excavated by Michelle SALOTTI and her co-workers at the locality of Castiglione 3, at Oletta, in Northern Corsica. Until recently, the only avifaunas known from Corsica were dated from the Upper Pleistocene and included recent forms with the exception of the extinct *Bubo insularis*, a dwarf Eagle Owl from Corsica and Sardinia. The material from Castiglione 3, dated from the Middle Pleistocene, contains several extinct endemic forms of birds, associated with extinct endemic mammals. This material has become so abundant that Cécile decided to entrust it to a student, Antoine LOUCHART, for a Ph. D. The extinct endemic forms are mainly Accipitriformes and Strigiformes. Amongst the Strigiformes, in addition to *Bubo insularis*, there are also *Tyto balearica*, the large *Tyto* previously described in the Balearics, and *Athene angelis*, a large form of *Athene*, the Little Owl. Then Cécile has worked on a Quercymegapodiidae, not from the Quercy but from the Lower Miocene of Saint-Gérard-le-Puy, France. This form can be attributed to the genus *Ameripodius* described by H. Alvarenga from the locality of Taubaté, Brazil. Together with a description of this species, Cécile prepares a general paper on the relationships between the avifaunas of Europe, North America, and South America during the first part of the Tertiary.

LEGENDRE S., SIGÉ B., ASTRUC J.-G., BONIS L. de, CROCHET J.-Y., DENYS C., GODINOT M., HARTENBERGER J.-L., MARANDAT B., MOURER-CHAUVIRÉ C., RAGE J.-C., RÉMY J.-A., SUDRE J. et VIANEY-LIAUD M. (1997) - Les Phosphorites du Quercy : 30 ans de recherche. Bilan et perspectives. Actualités paléontologiques en l'honneur de Claude Babin. *Geobios mémoire spécial* n° 20: 331-345.
MOURER-CHAUVIRÉ C., SALOTTI M., PEREIRA E., QUINIF Y., COURTOIS J.-Y., DUBOIS J.-N. et LA MILZA J.-C. (1997) - *Athene angelis* n. sp. (Aves, Strigiformes) nouvelle espèce endémique insulaire éteinte du Pléistocène moyen et supérieur de Corse (France). *C. R. Acad. Sci. Paris*, t. 324, sér. IIa, p. 677-684.
MOURER-CHAUVIRÉ C., SENUT B., PICKFORD M., MEIN P. et DAUPHIN Y. (1996) - Ostrich legs, eggs and phylogenies. *South African Journal of Science*, 92: 492-495.
SALOTTI, M., BAILON S., BONIFAY M.F., COURTOIS J.Y., DUBOIS J.N., FERRANDINI J., FERRANDINI M., LA MILZA J.C., MOURER-CHAUVIRÉ C., POPELARD J.B., QUINIF Y., RÉAL-TESTUD A.M., MINICONI C., PEREIRA E., et PERSIANI C. (1997) - Castiglione 3, un nouveau remplissage fossilifère d'âge Pléistocène moyen dans le karst de la région d'Oletta (Haute-Corse, France). *C. R. Acad. Paris*, t. 324, sér. IIa, p. 67-74, 3 fig., 2 tabl.

GERMANY

Gerald MAYR finished his PhD about the coraciiform and piciform birds from Grube Messel (Hessen, Germany) and got a job at the Forschungsinstitut Senckenberg as curator of the ornithological department (in succession of D.S. Peters). He is going on working about the fossil birds from Messel and other Eocene localities. A paper about a new species resembling *Rhynchaetites* has been finished. In the moment he is preparing a paper together with M. Daniels about the psittaciform birds from Messel and the London Clay.

OPINION 1874. *Aptornis* Owen, 1848 (Aves): conserved as the correct original spelling. *Bulletin of Zoological Nomenclature*, 54 (2): 142-143, 1997. Application received from Dr. Erich WEBER and Dr. Frank-Thorsten KRELL.

WELLNHOFER P. 1996. Ein Juravogel aus China ? *Naturw. Rdsch.*, 49 Jahrgang, Heft 5:199-200.

GREAT BRITAIN

Alan COOPER has been busy setting up an ancient DNA laboratory at the Oxford University Museum. Projects currently underway include sequencing DNA from the moa mitochondrial genome, subfossil macaws from New Mexico, and a pigeon phylogeny, as well as finishing off studies on parrot and ibis evolution.

Joanne COOPER is still working on her thesis on the late Pleistocene avifaunas of Gibraltar. Work has been going well, with about 80 species now identified from the 4 sites in the study, ranging from vultures to warblers. She is now concentrating on the complexities of interpretation - and she only has a year to do it in!

Michael DANIELS sends the following information:

Since I last reported I have continued to successfully acquire ever more birds from the lower Eocene strata of the Naze. Some are similar to, or the same as, types previously discovered. Several are completely new to the collection, which now accounts for over 670 individuals. The following is a listing, with additional notes: of the more important recoveries.

WN.96939. Leg material of a recurrent Naze bird which has owl-like characteristics. The tarsus is undeniably zygodactyl, possibly with facultative adaption of the toes which are longer than in any strigids I have examined. One phalange has remnants of the tubercular sole preserved and two claws are partly covered by the originally horny sheaths, now pyritized.

WN. 96950. A specimen composed of good leg material. An unimpaired distal end of the tarsus, shaft and distal tibia, proximal femur, should have provided enough information for broad identification, but although the bones had a familiar look to them, enlightenment was not forthcoming. By lucky coincidence, actually whilst writing these details, I was also engaged in processing a modern bird that I had been macerating for its skeleton. Handling the tarsus I was reminded of the fossil and when I quickly compared the two they showed considerable likeness. Other elements equally confirmed the general similarity, indeed enough in my view to be able to consider a tern, Sterninae connection, which would represent the only record of this type of bird from the Naze deposits. The oldest, suspect, record is from the Miocene, but we have seen that in these low strata there are several very convincing fossils that show considerable similarity to extant members of the Charadriiformes. See drawing.

WN. 97959. Is another good example of the identification 'problem'. In this instance we have much of the wings and pectoral girdle..... here, inspiration is totally wanting except that I imagine it to be some sort of waterbird and, if nothing else, well illustrating the pitfalls of single element determinations for determination's sake.

WN. 96960. Clearly yet another Naze swift-like bird closest to the tree swifts *Herniprocniidae*; about 24 of these in my collection and one elsewhere. This discovery nevertheless, had added significance as it was obtained whilst Gerald Mayr was with me at Walton during his stay with us in November. We did not notice the bird's existence in a pocket removed speculatively, but the tiny bones, some pristine, eventually appeared when I processed the material some months later. It is always pleasing to find things when I take visitors to the Naze.

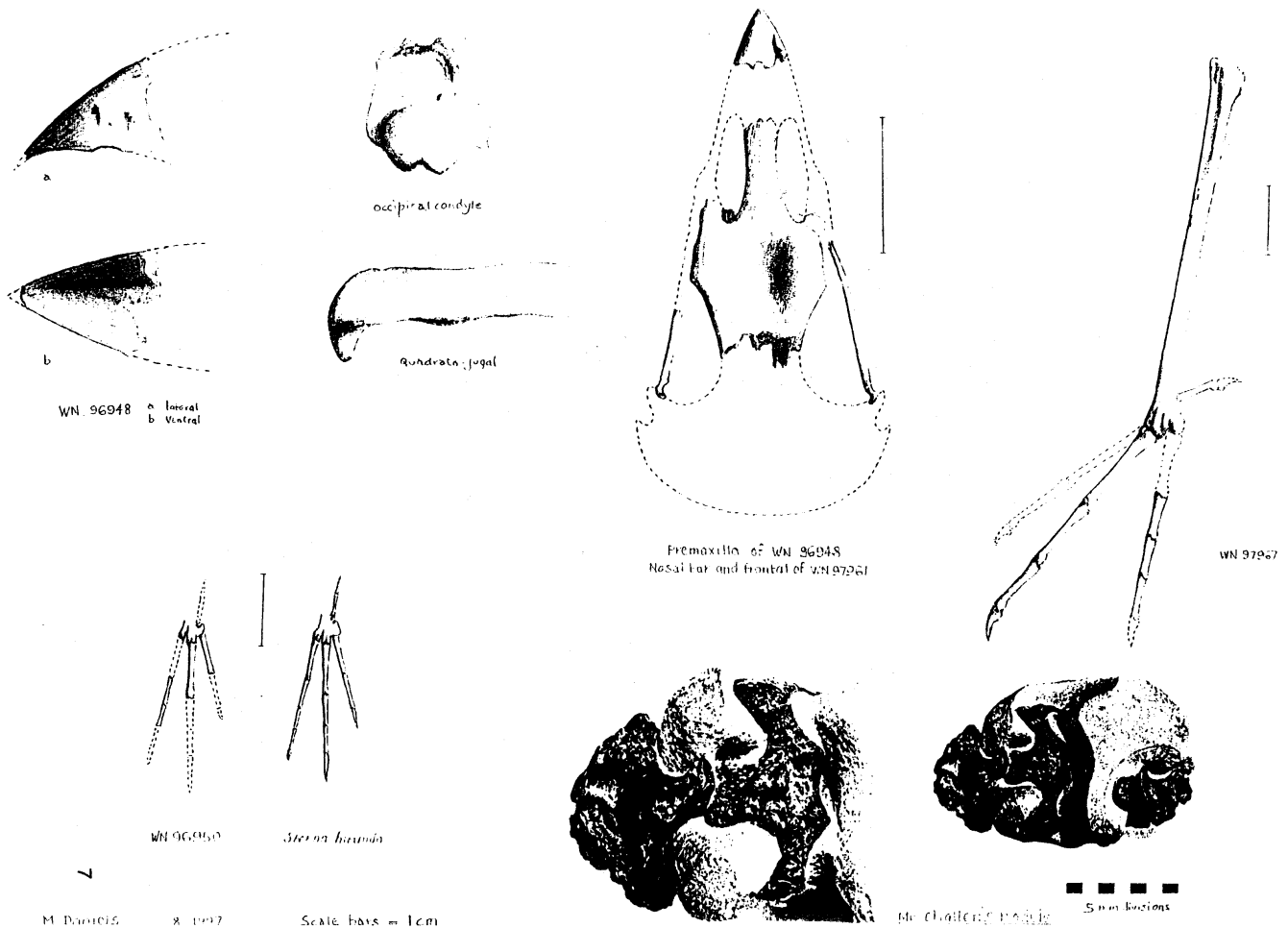
WN. 97961. A recent addition composed mostly of cranial attachments, viz., quadrates, a complete pterygoid, quadrato-jugals and a range of vertebrae including atlas. What for a time completely confused me as to its structural identity, was a complex section of bone. Initially thought to be pelvis, then sphenoidal rostrum. finally, when fully extricated from obscuring matrix, was revealed as an admirably diagnostic frontal and nasal region of the skull. Together with similarly instructive quadrate and pterygoid detail, clearly. this is an owl, albeit a very small variety say pygmy owl, *Glaucidium* size. My illustration attempts to reconstruct the fossil and I have

added the premaxilla of WN.96948 which appears to be dimensionally correct and seems to fit morphologically.

WN. 97966 Of special interest due to an unusual association that apparently occurred at the time of its ancient burial on the sea bed. In itself, the bird was a repeat of sixteen previous occurrences of a small passer-like form. Here, when preparing the specimen under the microscope it was noticed that close to and around the bones of the bird there clustered, in incredible abundance, a type of diatom = ?*Coscinodiscus*. This is certainly unique in my experience of the Naze and elsewhere in the London Clay, where this lowly plant seems to be of considerable rarity. In respect of the bird itself, the remains included a virtually complete furcula, hardly distorted and bearing a very large hypocleidium, this feature missing in other specimens. Overall length of bone -12.7mm.

WN. 97967. Although the shaft of this important tarsometatarsus broke up when I dug into the accumulation in which it occurred the impression in the clay enabled me to measure the length accurately, 55.7 mm. The distal end is largely undamaged, proximal less complete. The bone, with its accompanying seven phalanges and one claw, provides sufficient evidence to support the belief that it is a rail of some sort. See my accompanying illustration.

WN. 97969 and WN. 97974. These emerged during successive visits to the Naze though from widely separated regions, probably different stratigraphic levels also. However, both are clearly of the form *Primobucco olsoni*, which according to its frequent occurrence at this locality, around twenty-four individuals, appears to have been a populous bird in London Clay times.



Some additional notes

It is now possible to confidently regard *Phorusrhacos* or a relative of such, as being present in these British strata. This is confirmed by studying information from various sources in literature. My illustration in the 1992 newsletter, is of the largest Naze individual amongst several examples, some quite small in size.

I now consider that there is perhaps an even chance of adding pseudontorns to the Naze list. Some large sections of bone which appear to be avian and possible ramus, has projections reminiscent of the definitive bony 'teeth'. If confirmed, then the creature (WN. 96918), was of very large size, greater than the known genera *Macrodonopteryx* and *Pseudontornis* from higher strata of the London Clay . Maybe, by scaling up a Gannet, *Sula*, we could imagine a bird with say a 3 metre wingspread.

To conclude these details it is important I mention the visit of Mr Mike Challen of Nottingham who brought with him for my opinion. a nodule collected from the higher London clay of Sheppey and containing several large vertebrae. These he had diligently revealed in the quite hard matrix and since they had emerged in good condition, only impaired where they had been exposed to natural abrasion, I was able to examine them closely. I think they are avian, from an even larger bird. than previously mentioned. The bones seem to be of lightweight structure and if the indications are correct, this individual may have had a wingspan of around four metres...see photograph. Recently there has been news of other birds discovered in nodules - talk of articulated specimens. I understand these have been collected by members of a geological group; it will be regrettable if that is the last we hear of them.

NOTES ON LEPTOSOMUS

During Gerald Mayr's visit here, part of our conversation focussed on *Leptosomus* and the possibility that there could be fossils in the collection that might show a likeness to this curious bird- He had kindly brought some replicas of the Courol's main limb elements and rather by mischance, my specimen of *Asio otus* became involved in our discussions With the two birds collectively under scrutiny, we were at once struck by the shared similarities of the bones Others have also noticed this fact (Olson 1985, page 123), but Beddard (1898) made no reference to any connection, although finding a hint of cuckoo affinities' in the syrinx. Sharpe (1895), whilst accepting that 'Kiroumbos' may be aberrant rollers notes characters that could link the bird with the frogmouths. Cracraft (1971), devoted a lengthy paper to reviewing roller relationships, within which *Leptosomus* featured prominently; there does not seem to be, however, any mention of types outside the Coraciiformes. A table in that work (page 743), provides ratios calculated from various limb bone lengths of four types of roller. I was momentarily confused over those compiled for the leg of *Leptosomus*, but realized after consulting my own material. that the figure for the femur was erroneous. Given the similarity of the bones of owls to the Courol. then introducing ratio sums for various Strigiformes set against those for putative rollers, it becomes evident that wider terms of ordinal reference should have been a study prerequisite. The view that a bird with a zygodactyl toe arrangement can be accommodated within a group that is composed entirely of varieties with anisodactyl condition of the feet, or such syndactyly modified, I find difficult to comprehend. How much importance is attached to the foramen supracoracoideum of the coracoid is somewhat debatable, but this is a feature shared by *Leptosomus* and owls and not by rollers or for that matter any members of the Coracii. Comparison of the osteology of *Leptosomus* with, in this case, owls, suggests the need for a careful review of the bird's anatomy, paying attention to its possible affinities with types more distant than those traditionally considered as its nearest relatives within the Coraciiformes. Certainly, the Podargidae Should then be, similarly, brought under comparative scrutiny. Also that endeavour must focus on the fossil evidence, taking into account mosaic structures frequently observed in early avian forerunners. I have listed owls from the Naze,

but aspects of the osteology of these London Clay forms are intriguing; careful attention here might just help to unfold the answers to questions raised in this topic.

Ratios of *Leptosomus* compared to various rollers, owls and frogmouth

Species	Humerus	Ulna	Carpomet.	Femur	Tibia	Tarsus
<i>Leptosomus</i>	38	44	18	32	44	24
<i>Coracias</i>	36	44	20	32	43	25
<i>Atelornis</i>	38	44	18	25	43	32
<i>Eurystomus</i>	36.5	43.5	20	35	41	23
<i>Strix aluco</i>	38	42	20	30	44	26
<i>Asio otus</i>	39	41	20	31	45	24
<i>Bubo bubo</i>	37.5	43.5	19	31.5	44.5	24
<i>Tyto alba</i>	38	43	19	26	43	31
<i>Athene noctua</i>	36	43	21	29	44	27
<i>Podargus strigoides</i>	37.5	43.5	19	30	48	22
Naze owl-like birds	34	43	23	30.5	47.5	22

References:

Beddard, F.E. 1898. The structure and classification of Birds. London: Longmans, Green

Cracraft, J. 1971 The relationships and evolution of the rollers. families Coraciidae, Brachypteraciidae and Leptosomatidae. Auk 88. 723- 752.

Olson, S.L. 1985. The fossil record of birds New York: Academic Press In Avian Biology, Vol. 8, eds. D.S. Farner, R. King, and K.C. Parkes

Sharpe, R. B 1895. In The Royal Natural History, ed. R Lydekker. 82-3. London: Frederick Warne.

At the moment Gareth DYKE is working on the Phylogeny of Mesozoic birds, funded by the Royal Society, as a graduate student at Bristol. Using new techniques of phylogenetic inference that are sensitive to the confounding effects of poorly known taxa to consensus trees, he hopes to be able to resolve some key questions that have dogged studies of the evolution of birds. For example, the status of *Protoavis*, *Avimimus* and *Mononykus* are currently receiving attention. He has two papers submitted that deal with these problems. In short his work at the moment involves the combination and re-analysis of previous phylogenetic analyses of the ingroup.

G. Dyke starts his PhD in Bristol with Mike BENTON and Dave UNWIN on the evolution and radiation of birds (so called). He intends to look at both Cretaceous and Tertiary forms to develop functional models for the radiation and/or extinction of lineages. Why did some groups of birds go extinct with the dinosaurs at the KT and some survive ??

G. Dyke collaborates with David VARRICCHIO at the Old Trail Museum, Choteau Montana, and has recently been made a research associate of the Museum of the Rockies, Montana. He works closely also with Prof. Jeremy RAYNER and the Flight Mechanics Group in Bristol as well as Dr Mark WILKINSON and his Systematic Group.

Julian Pender HUME is working on the historical evidence concerning the extinct birds of the Mascarene Islands.

1. The existence on Réunion Island of an ibis, to which the local name of Solitaire was applied, is now well known (Mourer-Chauviré *et al.*, 1995, *Nature*). The existence of a series of white dodo paintings, provenance unknown, have long been thought to represent a raphid from Réunion. This paper can hopefully provide enough evidence to suggest that the white dodo paintings by Saffleven, Holsteyn and Withoos were not painted from living birds. Furthermore, it is proposed that Holsteyn the younger, not the elder, was the actual artist, which indicates that both he and Withoos most probably executed their paintings after the true dodo had become extinct. As evidence only exists for the transportation of Mauritian dodos, conclusions can be made that the paintings were based not on a Réunion bird, but a stuffed (possibly faded) individual, and/or copies of each other or others.

2. The original parrots of the Mascarene Islands are represented by just one living species, albeit critically endangered. Two other species, which survived into the 19th century, are known by just four skins and a few skeletal remains. A further two species, represented by skeletal remains only, can almost certainly be correlated to contemporary accounts. A fifth species, also known only from bone remains, has tentatively been placed into genus, but this now appears in error. A study of the specimens has revealed that two species of medium-size parrot are involved.

During this year John STEWART has been writing his Ph. D. thesis the title of which is “The Evolution of Quaternary Birds in the Western Palaearctic: aspects of taxonomy and ecomorphology”. This title may imply a broader coverage than the 4 groups included, which are starlings, ravens, cranes and red/willow grouse and ptarmigans. Other taxa which have been studied have been excluded for one reason or another but shall hopefully continue to be studied by himself until better sample sizes are achieved. These include: other corvids than ravens, hirundinids, swifts, cormorants and woodcock in addition to an investigation of all British Pleistocene holotypes and unusual records.

Once he has finished his thesis he will be starting a postdoctoral fellowship at the McDonald Institute for Archaeological Research at the University of Cambridge where he will be working on Oxygene Isotope Stage 3 faunas, particularly mammals, as part of an initiative to look at the environment during the Neanderthal / Modern Human transition. During this time he hopes to carry on working on Pleistocene birds when the opportunity arises.

COOPER, A. and PENNY, D. 1997. Mass survival of birds across the Cretaceous-Tertiary boundary: Molecular evidence. *Science*, 275, 1109-1113.

COOPER, A. 1997. Studies of avian ancient DNA: From Jurassic Park to modern island extinctions, in *Avian Molecular Evolution and Systematics* (D. Mindell Ed.), pp 345-373, *Academic Press*.

ITALY

Marco PAVIA is happy to inform that he has finished his studies in university. On 15 July he presented his “Tesi di Laurea” on the pleistocene avifauna of Spinagallo, Sicily. The conclusion of his work is that this bird-bone assemblage probably represents the rest of pellets and carcasses accumulated by a large *Tyto* in the lower cavity of the cave. Now he has in plan to continue his studies on fossil bird bones and one of his next projects is the description of the extinct Strigiformes from Spinagallo. Another project, in collaboration with Cécile Mourer-Chauviré, is to make a revision of the Pleistocene forms of the genus *Athene* found in Mediterranean islands. M. Pavia is also preparing the chapter on Birds for the New Catalogue of Italian Fossil Vertebrates, so he will be very grateful to the persons who could send him information about Italian fossil bird bones preserved in other countries. Also about *Athene*, M. Pavia would be very grateful to the persons who could send him information about the occurrence of fossil bird material from Mediterranean Islands in

paleontological collections. His e-mail address is gpavia@flower.it

JAPAN

DAVIS, P. G. 1996. The Taphonomy of *Archaeopteryx*. *Bulletin of the National Science Museum, Series C (Geology and Paleontology)*, Tokyo, 22 (3-4): 91-106.

NEDERLAND

Peter WEESIE is still very implicated in the university cooperation with some countries of Western Africa (Benin, Burkina Faso), and does not have the time to work on fossil birds. However he informs that the Proceedings of the Congress on the locality of Corbeddu, in Sardinia, held in 1986, will probably be published. These proceedings will include his paper on the fossil birds from this locality.

POLAND

Zygmunt BOCHENSKI worked on the Uppermost Oligocene bird remains from three localities in Polish Carpathians as well as on the systematic revision of the Upper Pliocene owl from Rebielice Krolewskie. His "List of European fossil bird species" corrected and actualized is now in print - it will be published later this year. He also translated and prepared for publication in various Polish journals a few papers by N. I. Burchak-Abramovich sent by him last December from Tbilisi. Three of these papers are now in print. Zygmunt worked also on two papers concerning the breeding biology of modern birds.

Zbigniew M. BOCHENSKI studied (in collaboration with Finnish colleagues) the fragmentation and surface damage to bones of bird victims from food remains of the Ural Owl and the Golden Eagle. The papers will be prepared in future.

Teresa TOMEK finished identification of the Late Paleolithic bird remains from Deszczowa Cave and Krucza Cave (both in S Poland). The papers on these materials are to be published together with archaeologists. Teresa prepared also a faunistic paper on modern birds.

Zbigniew together with Teresa and their Russian colleagues studied surface damage to bird bones in pellet materials of the Imperial Eagle from the Ural Mts. They also continued studies on the comparative osteology of European Corvidae among others in the Zoological Museum in Copenhagen.

All members of the Krakow team directed by Zygmunt were invited to prepare a handbook for university students: "Podstawy Archeozoologii - szczatki ptakow" [= Fundamentals of Archaeozoology - Bird Remains]. The works on this book are advanced; the manuscripts of a few chapters are nearly ready. The publishers would like to have it completed in 1998.

The comparative collection of the recent bird skeletons stored at the Institute of Systematics and Evolution of Animals, Pol. Ac. Sci. in Krakow contains now a little more than 3000 complete skeletons belonging to 1010 bird species - the other 16 species are represented by partial skeletons only. The exchange of specimens is highly appreciated.

BOCHENSKI, Zy. 1996. The effect of fishponds on the regional bird fauna. *Acta Hydrobiol.*, 37, suppl. 1: 75-82.

BOCHENSKI, Zy. 1997. Enantiornithes - a dominant group of the Cretaceous terrestrial birds. *Przegląd zoologiczny*, 49 (3-4): 175-184. [in Polish with English summary]

BOCHENSKI, Z.M., KOROVIN, V.A., NEKRASOV, A.E., TOMEK, T. 1997. Fragmentation of bird bones in

food remains of Imperial Eagles (*Aquila heliaca*). *International Journal of Osteoarchaeology*, 7: 165-171.

ROMANIA

Eugen KESSLER and Erika GAL have attended symposiums and conferences from Baile Herculane, Bucharest, Cluj-Napoca, Deva, and Iclod.

They have studied and identified fossil and subfossil birds from the Miocene of Minis, the Neolithic of Zau de Câmpie, and from Hârsova, Popina Bordusani and Vitanesti, in South-East Romania.

KESSLER, E. and GAL, E. 1996. New taxa in the Neogene bird fauna from Eastern Paratethys. *Studia Univ. Babeş-Bolyai*, Biologia, XLI (2): 73-79.

KESSLER, E. and GAL, E. 1997. The fossil and subfossil bird remains from Banat. *Analele Banatului - Stiintele Naturii*, Timisoara, 3: 141-144 (in Romanian).

KESSLER, E. and GAL, E. 1997. Ornithology (coursebook for the university students). *Studium Könyvkiado*, Kolozsvár, 80 p. (in Hungarian).

RUSSIA

Leningrad

Dr. Andrei PANTELEYEV continue to define the bird remains from the Denisova Cave in Altai (Middle and Upper Pleistocene). Total determined 550 bones from 53 species. The remains of *Lagopus lagopus*, *Eremophila alpestris*, *Plectrophenax nivalis*, *Leucosticte brandti* and *Pyrrhocorax pyrrhocorax* are predominant. 28 Recent species inhabited on Altai yet in Middle Pleistocene.

Dr. Andrei PANTELEYEV and Dr. Gennady BARYSHNIKOV study Upper Pleistocene vertebrate fauna from Tsagan-Agui Cave in Gobian Altai (Mongolia). List including 17 species of birds (*Falco cherrug*, *Columba rupestris*, *Syrhaptes paradoxus*, *Eremophila alpestris*, *Petronia petronia* and others) and 10 species of mammals (*Coelodonta antiquitatis*, *Crocota spelaea* and others).

Moscow

Inasmuch as the information on the last year was lost due to some technical cause, certain part of that information has been included in the present letter.

At the second half of 1996 E. KUROCHKIN finished two extensive papers (Survey of Mesozoic birds of Mongolia and former USSR; and (jointly with R. Barsbold) History of Russian-Mongolian collaboration in Vertebrate Palaeontology for the book "The Age of Dinosaurs in Russia and Mongolia" (M. Benton *et al.*, Editors), which is preparing to be published in 1998 by the Cambridge Univ. Press, and also has been done a lot of work as one of the editors of this book. For Proceedings of the 4th meeting of SAPE, after comments of the reviewers, he rewrote the paper on a close relationships of *Ambiortus* and *Otogornis* from the lower Cretaceous of Mongolia and China, respectively. At the end of 1996 he spent 2 months in Germany studying the *Archaeopteryx* specimens in different museums and he is very thankful to H.-P. Shultze, Burkhard Stephan, S. Peters, P. Wellnhofer, and G. Viohl which make his visits pleasant and extremely useful. In the anatomy of *Archaeopteryx* were found some unknown formerly details of anatomy, as well as the corrections for published observations of different authors. This experience shows how is important a direct study of the specimens, which can not be replaced even by the excellent published figures. By the way he made a short visit to Warsaw Institute of Palaeobiology to study of some fossil bird specimens in its collection, where he got a hospitality of H. Osmolska and K. Sabath. He worked with the fossil embryos from the late Cretaceous of Mongolia described in 1981 by A. Elzanowski. It was confirmed that both Warsaw embryonic specimens, and Moscow ones from the site Khermeen Tsav in South Mongolia belong to the same species of the Enantiornithes. However, no any

evidences to assign them to genus *Gobipteryx*. In the June of 1997 E. Kurochkin was invited to give a lecture "A New Approach to the Early Evolution of Birds" on the 146th Regular Meeting of the Paleontological Society of Japan, which was held in Toyohashi City, Aichi Prefecture, in the Museum of Natural History. The lecture was welcome with a great interest. Kurochkin would like to say a many thanks to colleagues and administration of Toyohashi for a wonderful hospitality during this visit. At the same time, he would like to express his admiration by the first class level of the exposition in the Toyohashi Museum of Natural History, which is mainly belongs to Paleontology.

A. KARHU finished a description of new jungornithid from the late Eocene of Northern Caucasus and submitted this paper to the Proceedings of the 4th SAPE Meeting. This year, he worked, in particular, on the tertiary avian materials from Zaysan Basin (Western Kazakhstan) and on a new restoration of the habits in *Deinonychus antirrhopus*; both manuscripts are in preparation at the moment. A lot of his time took preparing a computerized version of the comparative osteological collection of Laboratory and soon it will be ready for distribution with interest to exchange by skeletons with other institutions and museums.

Both E. KUROCHKIN and A. KARHU successfully participated in 4th SAPE Meeting and they would like to thank very much Helen James and Storrs Olson which made everything that to support their visit to the US.

K.E. MIKHAILOV has been occupied by proceeding his monograph on fossil eggs and eggshells and preparing SEM Atlas of avian eggshell structure (family/subfamily level). Hopefully both papers will be printed at the end of 1997. The other his activities comprised preparing an egg section for The Dinosaur Encyclopaedia (eds. Ph. Currie and K. Padian) and small paper on psychological questions of classification. In March 1996 he took part in the Symposium on Avian Taxonomy from Linnaeus to DNA (London) with the presentation 'Bird Taxonomy Based on Egg shell Structure'. In May July 1997 he headed the field works of the Initiative group on the survey of bird biodiversity in the old growth forests of the Northern Ussuriland (Far East of Russia). Konstantin asks all his colleagues to let him know if some new taxa are in process of printing (and references can be provided) for they could be included in the updated full list of egg parataxa.

- KARHU, A.A. 1997. A New Species of *Urmiornis* (Gruiformes: Ergilornithidae) from the Early Miocene of Western Kazakhstan. *Paleontologicheskyy Zhurnal*, 1: 104-110.
- KARHU, A.A., RAUTIAN, A.S. 1996. A New Family of Maniraptora (Dinosauria: Saurischia) from the Late Cretaceous of Mongolia. *Paleontologicheskyy Zhurnal*, 4: 85-94.
- KUROCHKIN, E.N. 1995. Synopsis of Mesozoic Birds and Early Evolution of Class Aves. *Archaeopteryx*, 13: 47-66. (Munich).
- KUROCHKIN, E.N. 1995. The assemblages of the Cretaceous birds in Asia. In A. Sun and Y. Wang (eds) *Sixth Symposium on Mesozoic Terrestrial Ecosystems and Biota*, Short Papers. Pp. 203-208. Beijing: China Ocean Press.
- KUROCHKIN, E.N. 1997. A New Approach to the Early Evolution of Birds. *Special edition of Toyohashi Museum of Natural History*. Pp. 4-6. [Jap.]
- MIKHAILOV, K.E. 1995. The evolutionary implications of eggshell structure in falconiform and ciconiiform birds. *Courier Forschungsinstitut Senckenberg*, Frankfurt a. M., 181: 337-355.
- MIKHAILOV, K.E. 1995. Systematic, faunistic and stratigraphic diversity of Cretaceous eggs in Mongolia: comparison with China. *Sixth Symposium on Mesozoic Terrestrial Ecosystems and Biota*, Short Papers, A. Sun and Y. Wang (eds.), China Ocean Press, Beijing, 165-168.
- MIKHAILOV, K.E. 1996. The eggs of birds in the Upper Cretaceous of Mongolia. *Paleontological Journal* (Moscow), 1: 119-121.
- MIKHAILOV, K.E. 1996. New genera of fossil eggs from the Upper Cretaceous of Mongolia. *Paleontological Journal* (Moscow), 2: 122-124.
- MIKHAILOV, K. E., BRAY, E. S., and HIRSCH, K. 1996. Parataxonomy of fossil egg remains (Veterovata): Principles and Applications. *Journ. Vert. Paleont.*, 16 (4): 763-769.
- MIKHAILOV, K. E. 1997. Bird taxonomy based on eggshell structure. *Bull. B. O. C.*, 117 (2): 149-150.
- PANTELEYEV, A.V. 1995. New data on the Holocene birds of the South Primorye// *Russ. J. Ornithol.* Vol. 4, N

3/4: 147-148. (in Russian).

PANTELEYEV, A.V. 1997. Bird remains from archaeological memorial Ivanovka (Sakhalin Island)// *Russ. J. Ornithol.* Express-issue. N 9: 8-10. (in Russian).

SPAIN

Bartomeu SEGUI, together with other research workers from the Universitat de les Illes Balears, has obtained a good sample of postwurmian avian remains, after the last excavations, undertaken mainly in Mallorca. The currently known assemblage of fossil birds from the Upper Pleistocene of Mallorca is now containing more than 75 species, and seems to give a good vision of the paleoecological structuration of the communities. The case of Menorca is different because the avian remains of the Upper Pleistocene are scarce. In spite of this, they think that both islands were quite similar during this period of time. These conclusions are stated, together with the description of the material, in the Memoria d'Investigacio of his thesis, a preliminary academic document that he has to prepare for the University before the final thesis.

They have also travelled to Menorca, to look for more fossil sites. Together with Bep QUINTANA, from Menorca, who is working on insular fossil mammals, they have found some breccias ranging from the Upper Miocene (similar to those already known in Punta Nati) to well into the Pleistocene. The problem is that it is impossible to have accurate datings. This material, which is rich in avian remains, together with samples already collected by Bep Quintana, is proving very interesting to know how were the avifaunas in a period of time rather unknown in the Mediterranean. They intended to go on with field work in August, together with J. C. RANDO.

A small sample of bird bones from Dominican Republic was obtained after two travels that their team, directed by Dr. ALCOVER, did to the island in the frame of a wide naturalistic project. Among them there is a large-sized owl, probably one of the giant species already known in Cuba and Hispaniola. The study of this material is not a priority now, because field work will probably be completed in the future.

M. LOPEZ and J. C. RANDO are continuing to work on fossil vertebrates from Canary Islands, mainly on birds. For the moment they are working, together with B. SEGUI from Mallorca, on the description of a new species of extinct passerine, with strong adaptations to the life on the ground, from Tenerife Island.

RANDO, J. C. and LOPEZ, M. 1996. Un nuevo yacimiento de vertebrados fosiles en Tenerife (Islas Canarias). *Proceedings 7th International Symposium on Vulcanospeleology*, 1: 171-173.

RANDO, J. C., LOPEZ, M. and JIMENEZ, M. C. 1997. Bird remains from the archaeological site of Guinea (El Hierro, Canary Islands). *International Journal of Osteoarchaeology*, 7 (in press).

RANDO, J.C., RODRIGUEZ, A. C., PAIS, F. J., NAVARRO, J. F., and MARTIN, E. 1996. Los restos de aves del yacimiento arqueologica de "El Tendal" (La Palma, Islas Canarias). *El Museo Canario*, 51: 87-102.

SEGUI, B. 1996. Les avifaunes fossils dels jaciments carstics del Pliocè, Plistocè i Holocè de les Gimnèsies. *Societat d'Historia natural de les Balears*, 39: 25-42.

SWEDEN

Tommy TYRBERG reports that his Catalogue of the Pleistocene Birds of the Palearctic has been accepted for publication by the Nuttall Ornithological Club and will hopefully appear fairly soon. He intends to go on keeping his database as up to date as he can, and would therefore be very grateful for reprints of any papers dealing with Pleistocene birds from the Palearctic. He has also started work on a bibliography of Avian Paleontology in cooperation with Jiri MLIKOVSKY, in Prague, a project which will probably take a couple of years to finish. He also encloses a note on Internet sites which can be useful to Avian Paleontologists. This is by no means comprehensive but is just a list of a few sites that he has found useful himself:

<http://www.flmnh.ufl.edu/databases/vp/intro.htm>

This site gives access to the catalogs of the University of Florida Vertebrate Paleontology (UF) Collection, Florida Geological Survey (UF/FGS) Collection (small), and the Pierce Brodkorb Ornithology (UF/PB) Collection. There are quite a few museum catalogs on the network, but while most of these only contain type specimen, the UFL catalogs are comprehensive.

http://eteweb.lscf.ucsb.edu/bfv/bfv_form.html

Online access to the 1981-1993 volumes of the Bibliography of Fossil Vertebrates with fairly good search facilities. There are plans to expand coverage to the whole BFV series from 1509 through 1993. Note though that the BFV coverage for birds has always been rather incomplete.

<http://www.nmnh.si.edu/BIRDNET/oldbirds/index.html>

“Ancient Avifaunas of Northern America. An analysis of bird records of northern American from Central America north, including Central America, the United States and Canada. The analysis primarily covers the periode from 40,000 B. C. to A. D. 1750 with a few additional records from sites with paleontology, archaeology, and anthropology material before and after these dates”. Coverage is rather spotty though and there are some deficiencies in the query system.

<http://lcweb2.loc.gov/resdev/ess/browse.html>

The Library of Congress Online Catalog. Contains ca 9.5 million books and 800,000 periodicals. Excellent, fast and flexible, search facilities. The perfect place to verify a citation. There are a lot of online library catalogs on internet nowadays. The second most useful one in Tyrberg's opinion is the Swedish LIBRIS system (<http://www.libris.kb.se/>). This contains the consolidated holdings of Swedish research libraries. This is much smaller than the Library of Congress (ca. 3 million items), but coverage is sometimes better, particularly for European material.

ERICSON, P. G. P. 1996. The skeletal evidence for a sister-group relationship of anseriform and galliform birds - a critical evaluation. *Journal of Avian Biology*, 27: 195-202.

ERICSON, P. G. P., TYRBERG, T., KJELLBERG, A. S., JONSSON, L. and ULLEN, I. 1997. The Earliest Record of House Sparrows (*Passer domesticus*) in Northern Europe. *Journal of Archaeological Science*, 24: 183-190.

UNITED STATES

Albuquerque

The New Mexico Museum of Natural History and Science, and the New Mexico Friends of Paleontology have sponsored the First Annual Symposium on Fossils of New Mexico on Saturday 20 September 1997 at the Museum. Paleontological research in New Mexico has been highlighted. The day-long symposium has consisted of oral presentations from the podium as well as a poster session. A volume of the presented papers, edited by the museum's paleontologists, Spencer LUCAS, Gary MORGAN, and Tom WILLIAMSON, will be published as a NMMNH Bulletin.

Mary Alice ROOT, Adjunct Curator of the Museum, has been asked to present a paper reviewing the Cretaceous-Tertiary fossil birds of New Mexico. In preparing this paper she continued to be amazed at the strides made in this field. She is already looking forward to the Beijing meeting of the SAPE in 2000.

Berrien Springs

Jim HAYWARD and his students continue to carry out research in experimental eggshell taphonomy at Andrews University. Jere CLAYBURN, a M.S. student, completed his thesis in 1996 on the effects of pH and temperature on eggshell dissolution. A second M.S. student, Denise SMITH, is just completing her thesis in which she examined the impact of soil bacteria on eggshell diagenesis. Several of his undergraduate students have also completed projects on eggshell taphonomy: Darlene ZAFI characterized the fracture patterns exhibited by fresh and hollow chicken eggs subjected to simulated sediment loads; Adam OWEN described the orientations (concave up and down) and dispersion patterns of eggshell fragments placed in a natural fluvial environment; and Kimberly SORENSEN examined the transport and orientation of eggshell fragments subjected to wind. Darla ZELENTSKY (doctoral student in geology at University of Calgary) and Jim are comparing patterns of eggshell fragment dispersions in an extant gull colony with those found in a fossilized dinosaur colony. These projects will be detailed in poster papers at the Society of Vertebrate Paleontology meetings in Chicago in October. Another undergraduate student, Kristin DICKSEN, is beginning a project in which she will develop a quantitative physical model of eggshell transport as the result of laboratory flume studies she will carry out. In short, it appears that eggshell fracture and dissolution patterns, as well as eggshell fragment orientation and dispersion patterns contain significant taphonomic information potentially useful to paleontologists in the reconstruction of dinosaur and avian paleoenvironments. As a simple example, transported eggshell fragments tend to be oriented concave down, whereas nontransported fragments (those around extant gull nests and extinct dinosaur nests) tend to be oriented concave up--certainly not a surprising discovery, but until our experimental work, never before quantified.

Gunnison, Colorado

Steve EMSLIE continues to conduct his research with undergraduate students at Western State College, Colorado. In April 1997 he returned from Palmer Station, Antarctic Peninsula, where he completed research on abandoned penguin rookeries. The excavations produced additional information on past population movements and diet of Adélie penguins in relation to climate change during the late Holocene. In addition, Steve's monograph on Plio-Pleistocene birds has been accepted for publication in *Ornithological Monographs*. This work summarizes the fossil record of birds in the Florida peninsula during the Ice Ages. Patterns in extinctions and originations with glacial cycles and sea-level changes are documented using GIS software. Biogeographic patterns in avian distributions are also presented.

During the next year, Steve will continue his research on the paleoecology of the Upper Gunnison Basin, Colorado. He has just received a grant from the National Geographic to complete excavations at two caves in this region. These sites have rich deposits of plant and vertebrate remains that date from the late Pleistocene through the Holocene. In addition, he is completing an analysis of a large collection of early Pleistocene birds from Porcupine Cave, Colorado, in collaboration with the Denver Museum of Natural History.

Long Beach, California

Stu WARTER is adjusting to retirement, but his interest in *Chendytes* continues.

Charlie COLLINS is working mostly on the biology of modern swifts but hopes soon to get a look at some swift material from Olduvai and the Pleistocene of Mexico.

Los Angeles

Ken CAMPBELL reports that as a consequence of a reorganization within the museum he has been named Curator of Ornithology and placed in charge of all bird collections, fossil and modern. LACM has not had a curator of ornithology for some years now, so there is considerable work to be done to restart the neornithology program and to rebuild the contacts between the local ornithological community and the museum. We look forward to building a new, integrated program in avian biology.

Ken and Fritz HERTEL continue to gather data for their research project involving the relationship between the femur and the antitrochanter of the pelvis, as expressed by their common articular surface. It is too early to produce any firm conclusions, but, as mentioned at the last SAPE meeting in Washington, some of the results are rather surprising and we look forward to bringing this effort to completion.

As part of Ken's ongoing studies of teratorns (which will be completed some day; that's a promise!), he and Fritz have been dissecting recently deceased condors in an effort to positively identify all osteological markers left by muscles and ligaments. One outcome of this work to date has been the discovery that the array of ligaments of birds may be more complex than generally described, at least in the condors. What is clear is that relative to the number of modern studies of avian musculature, avian ligaments have been virtually ignored and could prove a fertile ground for study.

New Haven, Connecticut

At the New York SVP meeting last October, John H. OSTROM was shown a small photograph by Dr. CHEN PEI-JI of the now famous Chinese 'feathered' *Compsognathus*-like 'dinosaur' from Liaoning Province, and determined to see the fossil. The Academy of Natural Science of Philadelphia asked him to lead a team of scientists to verify its identity and possible feathers. He accepted that mission and selected colleagues Prof. Alan H. BRUSH (of Connecticut), Prof. Larry MARTIN (of Kansas), Dr. Peter WELLNHOFER (of Germany), and Dr. David BUBIER (of Philadelphia Academy).

After months of communication, Chinese officials finally gave official invitations and they flew to Beijing where they were shown and allowed to photograph the right side slab of a small *Compsognathus*-like dinosaur which they have named *Sinosauropteryx prima*. The team of experts agreed that the specimen is very similar to *Compsognathus* from Solnhofen, Germany, but slightly smaller. They also agreed that the very fine fibers preserved along the back bone are **not** like feathers as they know those structures, but chemical analysis may verify a keratin vs. collagen composition. Next they flew to Nanjing to study the left-side counterpart slab and came to the same conclusions. Then they were taken to the fossil site in Liaoning Province to obtain matrix samples for radio-metric dating and assessing for future collections. They were told that the specimens of *Confuciusornis*, which they saw many of, came from these same deposits. Apparently, other feathered fossil specimens occur in these strata. Negotiations are underway now between Chinese Officials and the Administration of the Academy in Philadelphia for long-term collaboration to provide maximum geologic and paleontologic data.

Beyond that exciting activity, John OSTROM has participated in a joint paper, with Ted GOSLOW and Sam POORE of Brown University that will be in the SAPE proceedings volume (on the functional aspect of the avian Supracoracoideus) and he has completed another paper on the functional importance of the semi-lunate carpal. The latter will be published by the Academy of Natural Sciences, Philadelphia.

New York

Luis CHIAPPE continues his research on the origin and the early evolution of birds. Early in 1997, he visited several institutions in Beijing (China) where he was able to study the primitive *Confuciusornis* as well as the remarkable *Sinosauropteryx* and *Protarchaeopteryx*. Luis spent the summer collecting fossils in the Late Cretaceous of Mongolia and soon he is heading to Patagonia for another field season. His co-edited volume, *Mesozoic Birds: Above the Heads of Dinosaurs*, is taking shape; several papers have been already reviewed and others are being reviewed right now.

San Francisco

Sylvia HOPE thanks all who contributed to the workshop on early Neornithes at the SAPE meeting last summer. In regard to her own work, the opportunity to compare material and discuss it with others has strengthened evidence for presence of cormorants, Anseriformes, Charadriiformes, and possibly Galliformes in the late Cretaceous of the Western Interior of North America. The anseriformes, charadriiforms, and probable

galliform are much more similar to Paleogene than to modern forms, and would have been difficult or impossible to diagnose to their respective orders without the comparisons with the better known and more complete Paleogene material. The cormorant material is very limited but is completely modern in appearance.

Presbyornithid-like anseriforms are well represented in late Maastrichtian and early Paleocene collections from the Western Interior. A few unique post-cranial characters have been identified that link the Presbyornithidae and Anatidae. Revision of the Lance charadriiforms is in progress. Similar charadriiforms were present in the Western Interior and on the Atlantic coastal plane deposits of the Hornerstown Fm, New Jersey.

Washington

Storrs OLSON managed to put together all the edited manuscripts for the SAPE proceedings of the Washington meeting and submitted the volume to Smithsonian Contributions to Paleobiology in April. Not much has happened to it since then. He went to Hawaii in April and May to present a plenary paper on Hawaiian fossil birds at the meeting of the Cooper Ornithological Society in Hilo. He did some minor collecting of fossil birds on Hawaii, Oahu, and Kauai. He and Pam RASMUSSEN continued to work on the overwhelmingly large Miocene and Pliocene marine avifaunas from Lee Creek, North Carolina. A real breakthrough has come with the discovery of early Eocene birds in the Najemoy Formation of Virginia not far from Washington. These are the first birds of this age known anywhere in eastern North America. Only 33 bones have been recovered so far but these belong to no fewer than 11 species, which is extremely diverse considering how few bones there are. Except for a pseudodontorn, all are shore or land birds, including 4 species of Caprimulgiformes /Apodiformes. The deposits are exactly equivalent to the London Clay in age and it will be of great interest to compare the Virginia bones with those from England.

Helen JAMES and Storrs went to Wyoming and vicinity to show their kids the American west. Although they did a lot of sightseeing, they were camped for quite a while near Kemmerer, Wyoming, where they prospected in the Green River Formation. Helen and party were successful in finding a new *Presbyornis* locality of considerable interest for taphonomic studies being conducted in the area by Loma Linda University. Storrs also was able to examine some newly collected fossil birds from one of the commercial fish quarries in the Green River Formation. Most were of familiar species but there was an exquisite specimen of Zygodactylidae---probably the larger of two known also from the London Clay---and what appeared to be a foot-propelled diving bird. It had not been prepared so only outlines of some of the bones could be seen but it is something new for the GRF if not to science.

CHIAPPE, L. M. 1996. Early avian evolution in the southern hemisphere: Fossil record of birds in the Mesozoic of Gondwana. *Memoirs of the Queensland Museum*, 39: 533-556.

CHIAPPE, L. M. 1997. Aves. In *The Encyclopedia of Dinosaurs* (P. CURRIE and K. PADIAN Eds.). *Academic Press*.

CHIAPPE, L. M. 1997. Climbing *Archaeopteryx* ? A response to Yalden. *Archaeopteryx*, 15: 109-112.

CHIAPPE, L. M., NORELL, M. A., and CLARK, J. M. 1996. Phylogenetic position of *Mononykus* from the Upper Cretaceous of the Gobi Desert. *Memoirs of the Queensland Museum*, 39: 557-582.

CHIAPPE, L. M., NORELL, M. A., and CLARK, J. M. 1997. *Mononykus* and Birds: Methods and Evidence. *The Auk*, 114 (2): 300-302.

CHIAPPE, L. M., and RIVAROLA, D. 1996. *Pterodaustro's* smile. *Natural History*, 105 (11): 34935.

CHINSAMY, A. and CHIAPPE, L. M. 1997. The filter feeding apparatus of *Pterodaustro*. *ZSSA Symposium*. University of Cape Town, South Africa. Abstracts, p. 12.

EMSLIE, S. D. 1996. A fossil scrub-jay supports a recent systematic decision. *Condor*, 98: 675-680.

EMSLIE, S. D. 1997. Natural and human-induced impacts to seabird productivity and conservation in Antarctica: a review and perspectives. Pp 32-41 in *Cumulative Environmental impacts in Antarctica minimisation and management* (M. De Poorter and J. C. Dalziell, Eds.). *Proceedings of the IUCN Workshop on Cumulative Impacts in Antarctica*, Washington, D. C., 18-21 September 1996.

HAYWARD, J. L., S. D. FOLSOM, D. L. ELMENDORF, A. A. TAMBRINI, and D. L. COWLES. 1997.

Experiments on the taphonomy of amniote eggs in marine environments. *Palaios*, 12: 482-488.
LIVEZEY, B. C. 1996. A phylogenetic analysis of geese and swans (Anseriformes: Anserinae), including selected fossil species. *Syst. Biol.*, 45 (4): 415-450.
LIVEZEY, B. C. 1997. A phylogenetic analysis of modern sheldgeese and shelducks (Anatidae, Tadornini). *Ibis*, 139: 51-66.
PADIAN, K. and CHIAPPE, L. M. 1997. Bird origins. In *The Encyclopedia of Dinosaurs* (P. CURRIE and K. PADIAN Eds.). Academic Press.
SANZ, J. L., CHIAPPE, L. M., PÉREZ-MORENO, B. P., MORATALLA, J., HERNANDEZ-CARRASQUILLA, F., BUSCALIONI, A. D., ORTEGA, F., POYATO-ARIZA, F. J., RASSKIN-GUTMAN, D., and MARTINEZ-DELCLOS X. 1997. A nestling bird from the Early Cretaceous of Spain: Implications for avian skull and neck evolution. *Science*, 276: 1543-1546.
TOKARYK T. T., CUMBAA S. L. et STORER J. E. (1997) Early Late Cretaceous birds from Saskatchewan, Canada: the oldest diverse avifauna known from North America. *Journ. Vert. Paleont.*, 17 (1): 172-176.

New Members

Gareth J. DYKE, Department of Geology, University of Bristol, Bristol BS8 1AR, GREAT BRITAIN, e-mail: gd4328@bristol.ac.uk
Dr. Giuseppe MANGANELLI, Dip. di Biologia Evolutiva, Via Mattoli 4, I-53100 Siena, ITALY, e-mail: manganelli@unisi.it

Changes of addresses

Robert CHANDLER, Assistant Professor, Department of Biological and Environmental Sciences, Georgia College & State University, Milledgeville, GA 31061-0490, USA
Paul G. DAVIS, Department of Geology, National Science Museum, 3-23-1 Hyakunin-cho, Shinjuku-ku, Tokyo 169, JAPAN, e-mail: davis@kahaku.go.jp
Gerald MAYR, Forschungsinstitut Senckenberg, Sektion fuer Ornithologie, Senckenberganlage 25, 60325 Frankfurt a.M., GERMANY, e-mail: gmayr@sng.uni-frankfurt.de

New e-mail addresses

Joanne COOPER : jhc@nhm.ac.uk
Steve EMSLIE : semslie@western.edu
James L. HAYWARD : hayward@andrews.edu
Sylvia HOPE : sylvia.hope@calacademy.org
Marco PAVIA : gpavia@flower.it
M. LOPEZ and J. C. RANDO : jcrando@ull.es
Tommy TYRBERG : tommy.tyrberg@ffvaerotech.ffv.se
Peter D. M. WEESIE : P.D.M.Weesie@biol.rug.nl
