

**SOCIETY OF AVIAN
PALEONTOLOGY AND EVOLUTION**

INFORMATION LETTER

n° 13, October 1999

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**5TH INTERNATIONAL MEETING OF THE SOCIETY
OF AVIAN PALEONTOLOGY AND EVOLUTION**

**The Institute of Vertebrate Paleontology and Paleoanthropology
Chinese Academy of Sciences**

Beijing, China

June 1-4, 2000

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NEWS FROM THE MEMBERS

ARGENTINA

Jorge I. NORIEGA is now working together with Herculano ALVARENGA (Brazil) on the phylogeny of the different species of giant Miocene darters (Anhingidae) of South America. Together with Claudia TAMBUSI (Argentina) and Herculano ALVARENGA, they are beginning to study fossil specimens belonging to divers (Gaviidae) from the Late Cretaceous of Antarctica. Also see new address.

Florencia SAVANTI is working with another archaeologist, Isabel CRUZ, and they are trying to integrate information about taphonomy of avian remains collected in different places of Southern Patagonia. Their respective works have been done in different moments and research teams, and they are trying to unify methodological criteria to contribute to a regional taphonomy focused on the accurate interpretation of archaeological and paleoecological records. Their results will be presented during the China meeting.

CRUZ I. (1998) - Líneas tafonómicas y ecológicas para evaluar la explotación prehistórica de aves acuáticas en la zona cordillerana (Santa Cruz, Argentina). *Trabajo presentado en las IV Jornadas de Arqueología de la Patagonia*, noviembre de 1998 - Río Gallegos (Santa Cruz).

CRUZ I. (1999) - Pingüinos de Cabo Virgenes (Prov. Santa Cruz): aspectos tafonómicos e implicaciones arqueológicas. *Resumen presentado al XIII Congreso Nacional de Arqueología Argentina*, octubre de 1999 - Córdoba.

CRUZ I. y SAVANTI F. (1999) - Tafonomía de restos óseos de aves en el sur de Patagonia. *Resumen presentado al XIII Congreso Nacional de Arqueología Argentina*, octubre de 1999 - Córdoba.

MUÑOZ, S. y F. SAVANTI (1994) - Observaciones tafonómicas sobre restos avifaunísticos de la costa noreste de Tierra del Fuego (Patagonia Argentina), *Actas y Memorias del XI Congreso nacional de Arqueología Argentina*, San Rafael, Mendoza.

NORIEGA J.I. 1998. El registro fósil de Passeriformes (Aves) del Plió-Pleistoceno en la provincia de Buenos Aires: Implicancias paleobiogeográficas. *Actas de las Quintas Jornadas Geológicas y Geofísicas Bonaerenses* (1): 65-71.

SAVANTI F. (1994) - Las Aves en la dieta de los cazadores-recolectores terrestres de la Costa Fueguina. *Temas de Arqueología. Consejo nacional de investigaciones científicas y técnicas. Programa de Estudios prehistóricos*, Buenos Aires, 130 p.

TAMBUSI C. P. (1998) - Nuevo Anatidae (Aves: Anseriformes) del Plioceno de la región pampeana, Argentina. *Boll. Soc. Hist. natur. Balears*, vol. 41, p. 19-25, 1 tabl., 2 fig.

TAMBUSI C., UBILLA M. and PEREA D. (1999) - The youngest large carnassial bird (Phorusrhacidae, Phorusrhacinae) from South America (Pliocene-Early Pleistocene of Uruguay). *Journ. Vert. Paleont.*, vol. 19, n° 2, p. 404-406, 2 fig.

TONNI E. P. and NORIEGA J. I. (1996) - Una nueva especie de *Nandayus* Bonaparte, 1854 (Aves: Psittaciformes) del Plioceno tardío de Argentina. *Revista Chilena de Historia Natural*, 69: 97-104.

TONNI E.P., PARDINAS U.F.J., VERZI D.H., NORIEGA J.I., SCAGLIA O. y A. DONDAS. 1998.

Microvertebrados pleistocénicos del sudeste de la provincia de Buenos Aires (Argentina): Bioestratigrafía y paleoambientes. *Actas de las Quintas Jornadas Geológicas y Geofísicas Bonaerenses* (1): 73-83.

AUSTRALIA

Walter BOLES has recently published papers on Early Eocene graculavid shorebirds, represented by at least two, probably three, taxa ; an Early Miocene species of Oriolidae, *Longmornis robustirostra*, the third named passerine from the Australian Tertiary; and a study of the damage caused to the bones of avian prey by ghost bats, a major accumulator of small bird remains in Miocene and Pliocene deposits at Riversleigh, northwestern Queensland. He also identified some Quaternary-aged bird fossils from a mammal-dominated site in Irian Jaya. He has (finally) submitted a manuscript on Early Miocene swiftlets.

Walter has a new species of emu *Dromaius* from the late Oligocene of central Australia and an apparent cassowary *Casuarius* recently found in similar aged deposits at Riversleigh. Most of his time, however, is being spent on two species of large, flightless birds in the endemic Australian family Dromornithidae. One of these is *Barawertornis tedfordi* Rich, 1979, the smallest taxon of dromornithid birds (about the size of a cassowary). This is a poorly known form, found only at Riversleigh, but now represented by new material. The other species, a considerably larger form, is undescribed and will be placed in a new genus. It is known from a number of specimens, which include a well-preserved cranial endocast. As well as being described, the new fossils will permit a reanalysis of the generic relationships within the family.

An important paper on the Dromornithidae has been published by Peter MURRAY and Dirk MEGIRIAN (1998). These authors described for the first time cranial material from three taxa of these birds and greatly increased our understanding of the morphology of the head. Based on cranial features, they proposed the Dromornithidae belong with an anseriform lineage as the sister-group of the screamers, Anhimidae.

Based on the huge heads, rivaling that of *Diatryma* in size, Stephen WROE (1998) proposed these birds may have been carnivorous, a marked change from the traditional view.

APLIN K. P., PASVEER J. M. and BOLES W. E. (1999) - Quaternary vertebrates from the Bird's Head Peninsula, Irian Jaya, Indonesia, including descriptions of two previously unknown marsupial species. In BAYNES A. & LONG J. A. (Eds.) - Papers in Vertebrate Palaeontology. *Records of the Western Australian Museum Supplement*, 57: 351-387.

BOLES W. E. (1999) - Early Eocene shorebirds (Aves: Charadriiformes) from the Tingamarra Local Fauna, Murgon, Queensland, Australia. In BAYNES A. & LONG J. A. (Eds.) - Papers in Vertebrate Palaeontology. *Records of the Western Australian Museum Supplement*, 57: 229-238.

BOLES W. E. (1999) - A songbird (Aves: Passeriformes: Oriolidae) from the Miocene of Riversleigh, northwestern Queensland, Australia. *Alcheringa*, 23: 51-56.

BOLES W. E. (1999) - Avian prey of the Australian Ghost Bat *Macroderma gigas* (Microchiroptera: Megadermatidae): prey characteristics and damage from predation. *Australian Zoologist*, 31: 82-91.

BOLES W. E. (1999) - The big picture. *Wingspan*, 9: 16-19, 21 [popular article on the avian fossil record of Australia].

MURRAY P. F. & MEGIRIAN D. (1998) - The skull of dromornithine birds: anatomical evidence for their relationship to Anseriformes. *Records of the South Australian Museum*, 31: 51-97.

WROE S. (1998) - Bills, bones and bias: did thunder birds eat meat ? *Riversleigh Notes*, 40: 2-4.

BULGARIA

On 31 March 1999 Zlatozar BOEV submitted in the Scientific Council for Biology and Ecology of the Terrestrial Animals, of the Institute of Zoology (Bulgarian Academy of Sciences), his D. Sci. thesis, entitled : Neogene and Quaternary birds (Aves) from Bulgaria (in Bulgarian). The three reviewers, among the Bulgarian scientists, have been elected on 24 June 1999. They are the Academician Prof. Dr. Todor Nikolov (paleontologist, Geological Institute of the Bulgarian Academy of Sciences), Prof. Dr. Dimitar Nankinov (ornithologist, Institute of Zoology of the Bulgarian Academy of Sciences), and Assistant Prof. Dr. Stefan Donchev (ornithologist, Institute of Zoology of the Bulgarian Academy of Sciences). The reviews must be submitted by the 2 November 1999 and possibly the defense will be in the second half of November, or in December this year. A short abstract is given below :

The dissertation is a research work of theoretical and applied character. It deals with the problem of composition and evolution of the Bulgarian Neogene-Quaternary avifauna, studied through the original author's and literature data.

386 taxa (303 species), 201 of them recent, have been established. Two genera, 15 species and one subspecies are new for the science. An overall synthesis on the faunistic diversity and the stages and regularities of the development of the paleoavifaunas on the territory of Bulgaria during the last ca. 16 million years is presented. All data on the fossil avifauna of Bulgaria have been studied through the 13 459 bone finds from 10 Neogene and 83 Quaternary sites. The oldest in the world record of 18 genera and 5 species, the oldest in the European record of 4 genera, the first for the Tertiary avifauna of Europe record of 11 recent genera, the first for the Bulgarian record of 3 genera, 5 species and one subspecies, the first in the world fossil record of 5 recent genera and 5 new still undescribed fossil species of 5 recent genera have been established. Some general regularities of the evolution of birds have been confirmed. An unique (possibly the richest in Europe) Late Pliocene avifauna has been established. The chronostratigraphical and geographical range of 8 species and one subspecies of fossil birds, unknown for the Balkan region and Eastern Europe up to now, as well as their osteomorphological characterization have been completed significantly. The s. c. "Mixed avifaunas" on the Balkan peninsula in the Late Tertiary and the "Boreal complex" in Bulgaria in the Middle-Late Pleistocene, have been established for the first time. Paleoecological reconstructions of the environment in the vicinities of the sites have been completed. The hypothesis for the Pliocene origin of the family Tetraonidae in South-Eastern Europe (of D. Janossy), for the savanna origin of the genus *Lagopus* (Z. Bochenski) and the hypothesis on the polyphyletic origin of *Gallus gallus domestica* in South-Eastern Europe (N. Burchak-Abramovich, N. Ganya, M. Voinstvenskiy) have been supported. It has been established that the poultry-breeding in Bulgaria appeared not later than the 7th century B.C. The presence of *Tetrao tetrax* in the Bulgarian Late Pleistocene - Early Holocene avifauna, and the autochthonous origin of *Phasianus colchicus* in Bulgaria have been proved as well. The synanthropization process has been traced out through ornithoarchaeological evidences for the first time.

Papers in scientific journals

- BOEV Z. (1997) - *Chauvireria balcanica* gen. n., sp. n. (Perdicinae - Galliformes) from the Middle Villafranchian of Western Bulgaria. *Geologica Balcanica*, 27 (3-4): 69-78.
- BOEV Z. (1997) - 75 years of the birth of Nikolay Boev - the founder of the modern nature conservation of Bulgaria. *Historia naturalis bulgarica*, 8: 9-22 (in Bulgarian).
- BOEV Z. (1997) - From the bibliography of Nikolay Boev. *Historia naturalis bulgarica*, 8: 23-34 (in Bulgarian).
- BOEV Z. (1997) - Prof. Dr. Nicolay Yosifovich Burchak-Abramovich (26. 09. 1900 - 15. 10. 1997). *Historia naturalis bulgarica*, 8: 126.
- BOEV Z. (1997) - The Black Grouse, *Tetrao tetrix* (L., 1758) (Tetraonidae, Aves), a disappeared species in Bulgaria (Paleolithic and Neolithic records). *Anthropozoologica*, 25-26: 643-646.
- BOEV Z. (1998) - The Paleolithic Avifauna of Bulgaria. *ICAZ Bird Working Group Meeting*, University of Victoria, Victoria B. C., Canada, 20-22 August 1998. Final program and abstracts: 12-13.
- BOEV Z. (1998) - Late Pleistocene to Holocene Avifauna of Bulgaria: Diversity and impoverishment. *Second Intern. Congr. on the Biodiversity, Ecology and Conservation of the Balkan Fauna BIOECO 2*. Information Programme, Plenary Lectures, Abstracts, September 16-20 1998, Ohrid: 94-95.
- BOEV Z. N. (1998) - Sur la présence de la Bernache à cou roux *Branta ruficollis* (Pallas, 1769) au Würm en Bulgarie. *Branta*, 3: 18-19.
- BOEV Z. N. and KARAIVANOVA E. (1998) - *Fulica atra pontica* subsp. n. from the Middle Holocene on the South Black Sea Coast, Bulgaria. *Historia naturalis bulgarica*, 9:53-69.
- BOEV Z. N. (1998) - *Actitis balcanica* sp. n. - a Late Pliocene Sandpiper (Aves: Scolopacidae) from Bulgaria. *Historia naturalis bulgarica*, 9: 71-77.
- BOEV Z. N. (1998) - First fossil record of the Snowy Owl *Nyctea scandiaca* (Linnaeus, 1758) (Aves: Strigidae) from Bulgaria. *Historia naturalis bulgarica*, 9: 79-86.
- BOEV Z. N. (1998) - Late Pliocene Hawfinches (*Coccothraustes* Brisson, 1760) (Aves: Fringillidae) from Bulgaria. *Historia naturalis bulgarica*, 9: 87-99.
- BOEV Z. (1999) - Distribution of the Little Bustard (*Tetrax tetrax* (Linnaeus, 1758)) and Great Bustard (*Otis tarda* Linnaeus, 1758) (Aves: Otididae Gray, 1845) in Bulgaria during the Late Pleistocene and Holocene. *VIII Scientific Session of Biological Faculty, St. Kliment Ohridski*, University of Sofia, May 1999, Programm and Summaries: 45.
- BOEV Z. (1999) - The Middle Pleistocene avifauna of the Cave n° 16 (NW Bulgaria) and its palaeoecological implication. 8th Intern. Congr. on the Zoogeography and Ecology of Greece and Adjacent Regions, Kavala, 17-21 May 1999. *8th ICZEGAR Abstracts*, Hellenic Zoological Society: 21-22.

Papers in semi-popular editions

BOEV Z. (1997) - The Falconry in Bulgaria. *Priroda*, Sofia, 3-4: 74-81 (in Bulgarian).

BOEV Z. (1998) - The birds in th Neogene-Quaternary. *Priroda*, Sofia, 1-2: 57-67 (in Bulgarian).

CANADA

ZELENITSKY D. K., HILLS L. V. and CURRIE P. J. (1996) - Parataxonomic classification of ornithoid eggshell fragments from the Oldman Formation (Judith River Group; Upper Cretaceous), southern Alberta. *Can. J. Earth Sci.*, 33, p. 1655-1667, 6 fig.

CHINA

HOU Lian-Hai & CHEN Peiji (1999) - *Liaoxiornis delicatus* gen. et sp. nov., the smallest Mesozoic bird. *Chinese Science Bulletin*, 4(9): 834-838.

HOU Lian-Hai, MARTIN L. D., ZHOU Zhong-He, and FEDUCCIA A. (1999) - *Archaeopteryx* to opposite birds - missing link from the Mesozoic of China. *Vertebrata Palasiatica*, 37 (2): 88-95 (*Eoenantiornis buhleri*, nov. gen., nov. sp.).

HOU Lian-Hai, MARTIN L. D., ZHOU Zhong-He, FEDUCCIA A., and ZHANG Fu-Cheng (1999) - A diapsid skull in a new species of the primitive bird *Confuciusornis*. *Nature*, vol. 399, p. 679-682 (*Confuciusornis dui* sp. nov.)

ZHOU Zhong-He and HOU Lian-Hai (1998) - *Confuciusornis* and the early evolution of birds. *Vertebrata Palasiatica*, 36 (2): 137-146.

CZECH REPUBLIC

Jiri MLIKOVSKY continues to work on the Cenozoic birds of Europe. His joint project with Tommy TYRBERG (Bibliography of fossil birds) is slowly progressing. He is now about finishing a voluminous catalogue of the *Cenozoic birds of Europe*. In this respect he would be much obliged to all SAPE members and other colleagues for: (1) reprints of their newest papers, (2) additions and corrections to available catalogues on the Tertiary (Mlikovsky 1966) and Quaternary (Tyrberg 1998 - early Pleistocene and extinct taxa only) avian localities of Europe, (3) all unpublished or in-press information which could be used in the catalogue (lost or rediscovered type, new catalogue numbers, reidentification of old species etc.). All help will be appreciated. All unpublished data will be included in the catalogue in such a way, that the priority of the discovery remains with the respective author. Manuscript will be submitted to press in spring 2000 and he intends to include in it also the newest information.

MLIKOVSKY J. (1998) - A new parrot (Aves: Psittacidae) from the early Miocene of the Czech Republic. *Acta Societatis Zoologicae Bohemicae*, 62: 335-341.

MLIKOVSKY J. (1998) - Two new owls (Aves: Strigidae) from the early Miocene of the Czech

Republic, with comments on the fossil history of the subfamily Striginae. *Buteo*, 10: 5-21.

MLIKOVSKY J. (1998) - Taxonomic comments on the Quaternary vultures (Aves: Accipitridae, Aegypiinae) of Central Europe. *Buteo*, 10: 23-29.

MLIKOVSKY J. (1999) - A new jacana (Aves: Jacanidae) from the Early Miocene of the Czech Republic. *C. R. Acad. Sci. Paris*, t. 328, sér. II a, n° 2, p. 121-123.

MLIKOVSKY J. (1999) - A new painted snipe (Aves: Rostratulidae) from the early Miocene of the Czech Republic. *Casopis Narodniho Muzea, Rada Prirodovedna*, 167: 99-101.

MLIKOVSKY J. ((1999) - Early Miocene birds of Brest'any, Czech Republic. *Casopis Narodniho Muzea, Rada Prirodovedna*, 167: 103-109.

MLIKOVSKY J. (1999) - Note on the osteology and taxonomic position of African Long-tailed Hawk *Urotriorchis macrourus* (Aves: Accipitidae). *Bulletin of the British Ornithologists' Union*, 119: 32-37.

DENMARK

KRISTOFFERSEN A. V. (1999) - Cranial anatomy of an Early Paleogene Trogon (Aves; Trogoniformes) from Northern Europe. *IV European workshop on Vertebrate Paleontology*, Albarracin, Spain, Abstracts, p. 55.

FRANCE

Jacques CUISIN is working on the avian remains of the Late Pleistocene and Holocene localities of Gritulu and Monte Leone, in Corsica (Vigne, Bailon et Cuisin, 1997). This material is relatively rich. In Gritulu it includes a large number of Accipitriformes and the extinct dwarf Eagle owl *Bubo insularis*. In Monte Leone there is a great diversity of small passerines and the avifauna also includes an unsuspected *Otis tarda* (Cuisin et Vigne, 1999).

Véronique LAROULANDIE continues her PhD dissertation on archeozoology and taphonomy of Late Paleolithic avifaunas from French cave deposits. Her paper on the Willow Grouses from Les Eglises has been published in *Anthropozoologica*. She is working on damages caused by raptors on bird bones (*Lagopus*-size or larger), and she is also preparing a paper on experimental bird butchery.

The PhD dissertation of Antoine LOUCHART on the birds of the Pleistocene of Corsica is going on ; it is to be finished by the end of 2000. The preliminary study of the birds of Macinaggio (upper Pleistocene) has already been published (BONIFAY et al., 1998). Papers in preparation are :

- description of an extinct eagle (*Aquila* sp.) which was present in several places of Western Mediterranean during the Pleistocene ;
- preliminary study of the birds of Castiglione (Pleistocene, Corsica) ;
- description of an extinct barn owl (*Tyto* sp./*alba* ssp.) at Castiglione 3 (Pleistocene) ;
- description of some extinct species or subspecies of aquatic birds from the lower Pleistocene site of Dursunlu (Turkey) ;
- archeozoological study of the birds hunted and eaten by the Magdalenians at the site of Tai 2 (Drôme, France).

Cécile MOURER-CHAUVIRÉ has worked on the birds from the Late Pliocene locality of Aal al Oughlam, Morocco, but, unfortunately, this manuscript has not progressed very much. However, the papers which were indicated as in press in the last newsletter, on the relationships between the Tertiary avifaunas of Europe and South America, and on the history and evolution of the European avifauna, in collaboration with Jacques BLONDEL, have been published.

Cécile did not agree with many points of the paper by J. MLIKOVSKY on the fossil history of the Tytoninae, and sent some observations to the Journal für Ornithologie, that were answered by J. Mlikovsky. Cécile hopes that this paper will raise other observations and comments. She points out that it is recommended that the material upon which the description of new genera and new species is based should be deposited in a museum or similar institution where it will be safely preserved and will be accessible for purposes of research.

Nor did Cécile agree with the attribution by Mlikovsky of a distal tarsometatarsus from the Miocene of Bohemia to the family Jacanidae, and to the extinct genus *Nupharanassa*. She thinks that this piece corresponds to a roller and can be placed in the genus *Geranopterus*, described in the Phosphorites du Quercy.

Another manuscript submitted deals with the Great Auk, *Pinguinus impennis*. Remains of this bird have been found in several holocene localities, situated far to the South compared to its historical distribution area. Some of these localities are dated from a period when the climate was warmer than the recent one. This leads to the hypothesis that at the beginning of the Holocene, the Great Auk was still nesting on the Northern coast of Spain, and that the progressive displacement of its distribution towards the North is due to overexploitation by man on its breeding sites, as early as the Pleistocene.

Finally Cécile has studied, in collaboration with G. MAYR, the roller remains of Messel and Phosphorites du Quercy.

BLONDEL J. et MOURER-CHAUVIRÉ C. (1998) - Evolution and history of the western Palaeartic avifauna. *Trends in Ecology and Evolution*, 13 (12): 488-492.

BONIFAY E., BASSIAKOS Y., BONIFAY M. F., LOUCHART A., MOURER-CHAUVIRÉ C., PEREIRA E., QUINIF Y. et SALOTTI M. (1998) - La grotte de la Coscia (Rogliano, Macinaggio) : Etude préliminaire d'un nouveau site du Pléistocène supérieur de Corse. *Paleo*, 10: 17-41.

BUFFETAUT E. (1998) - First evidence of Enantiornithine birds from the Upper Cretaceous of Europe : Postcranial bones from Cruzy (Hérault, Southern France). *Oryctos*, vol. 1: 131-136.

CORBETT D. G., LEFEVRE C., CORBETT T. J., WEST D. et SIEGEL-CAUSEY D. (1997) - Excavations at KIS-008, Buldir Island: Evaluation and potential. *Arctic Anthrop.*, 34 (2): 100-117.

CORBETT D. G., LEFEVRE C. et SIEGEL-CAUSEY D. (1997) - The Western Aleutians: Cultural Isolation and Environmental Change. *Human Ecology*, 25 (3): 459-479.

CUISIN J. et VIGNE J. D. (1998) - Présence de la Grande Outarde (*Otis tarda*) au Boréal dans la région de Bonifacio (Corse-du-Sud, France ; 8ème millénaire av. J. C.). *Geobios*, 31 (6): 831-837, 2 fig.

D'ERRICO F. (1994) - Birds of Cosquer Cave. The Great Auk (*Pinguinus impennis*) and its significance during the Upper Palaeolithic. *Rock Art Research*, 11: 45-57.

D'ERRICO F. (1994) - Birds of the Grotte Cosquer: the Great Auk and Palaeolithic prehistory.

Antiquity, 68 (258): 39-47.

JANOO A. et SEN S. (1998) - Pliocene vertebrate locality of Çalta, Ankara, Turkey. 2. Aves: Struthionidae. *Geodiversitas*, 20 (3): 339-351 (*Struthio* sp.).

LAROULANDIE V. (1998) - Etudes archéozoologique et taphonomique des Lagopèdes des saules de la grotte magdalénienne des Eglises (Ariège). *Anthropozoologica*, 28: 45-54.

LEFEVRE C. (1997) - Sea Bird Fowling in Southern Patagonia: a Contribution to Understanding the Nomadic Round of Canoeros Indians. *Intern. Journ. Osteoarch.*, 7: 260-270.

LEFEVRE C., CORBETT D. G., WEST D. and SIEGEL-CAUSEY D. (1997) - A zooarchaeological study at Buldir Island, Western Aleutians, Alaska. *Arctic Anthrop.*, 34 (2): 118-131.

LOUCHART A., MOURER-CHAUVIRÉ C., GULEÇ E., CLARK HOWELL F. et WHITE T. D. (1998) - L'avifaune de Dursunlu, Turquie, Pléistocène inférieur : climat, environnement et biogéographie. *C. R. Acad. Sci. Paris*, 327 (5): 341-346.

MOURER-CHAUVIRÉ C. (1999) - Les relations entre les avifaunes du Tertiaire inférieur d'Europe et d'Amérique du Sud. *Bull. Soc. géol. Fr.*, 170 (1): 85-90.

MOURER-CHAUVIRÉ C. (1999) - Position systématique de *Nupharanassa bohemica* Mlikovsky, 1999. *C. R. Acad. Sci. Paris*, sér. IIa, 329 (1): 149-152.

MOURER-CHAUVIRÉ C. (1999) - Analyse de l'ouvrage de T. TYRBERG (1998) - Pleistocene Birds of the Palearctic: A Catalogue. *Ibis*, 141 (2): 343.

MOURER-CHAUVIRÉ C. (1999) - Tertiary barn owls of Europe. Comments on the paper by MLIKOVSKY J. (1998) - A new barn owl (Aves: Strigidae) from the early Miocene of Germany, with comments on the fossil history of the Tytonidae. *Journ. f. Ornith.*, 140 : 363-364.

MOURER-CHAUVIRÉ C. (1999) - Avifauna. In A. H. SIMMONS and Associates : Faunal extinction in an Island Society. Pygmy Hippopotamus Hunters of Cyprus. *Kluwer Academic/Plenum Press*, New York: 170-181.

MOURER-CHAUVIRÉ C. (1999) - The Tertiary Avifauna of Italy. Atti X Convegno italiano di Ornitologia. *Avocetta*, 23 (1): 149.

MOURER-CHAUVIRÉ C., LEGENDRE S., MARANDAT B. et SIGÉ B. (1999) - Le Quercy tropical. *Pour la Science*, 262 : 60-67.

SIGÉ B., HUGUENEY M., CROCHET J.-Y., LEGENDRE S., MOURER-CHAUVIRÉ C., RAGE J.-C. et SIMON-COINÇON R. (1998) - Baraval, nouvelle faune de l'Oligocène inférieur (MP 22) des Phosphorites du Quercy. Apport à la signification chronologique des remplissages karstiques. *Bull. Soc. Hist. natur. Toulouse*, 134 : 85-90.

VIGNE J. D., BAILON S. et CUISIN J. (1997) - Biostratigraphy of Amphibians, Reptiles, Birds and Mammals in Corsica and the role of Man in the Holocene faunal turnover. *Anthropozoologica*, 25-26:

587-604.

VILETTE P. (1999) - Bilan provisoire sur la chasse aux oiseaux pendant le Leptolithique dans le Sud de la France. *XXIV^o Congrès préhistorique de France*, Carcassonne, 26-30 Septembre 1994. Les faciès leptolithiques du Nord-Ouest méditerranéen : milieux naturels et culturels: 267-276.

GEORGIA

Bibliographical data of the last paper by Burchak-Abramovich are as follows:

BURCHAK-ABRAMOVICH N.I. & D.N. BURCHAK 1998. The birds of the Late Quaternary of the Altai Mts. *Acta zoologica cracoviensia*, 41(1): 51-60.

GERMANY

After studying mio-and pleistocene proboscideans Ursula GÖHLICH, from München, just started working on Miocene avifaunas of Southern Germany (Upper Freshwater Molasse, fissure fillings). In progress is a study of the birds from the fossil site of Sandelzhausen (early Middle Miocene (MN 5)) in the Upper Freshwater Molasse of Southern Germany, where we (Institut und Bayerische Staatssammlung für Paläontologie und Historische Geologie München) are still digging. In press (see below) is a publication about the first reference of a bird - a Sulid, represented only by a distal end of a humerus - from the late Oligocene Thalbergsschichten (subalpine Molasse, Bavaria).

Gerald MAYR continues to work on the Middle Eocene avifauna of Messel, and completed the description of a new galliform bird. In a cooperative project with Cécile MOURER-CHAUVIRÉ, the rollers from Messel and the Quercy were studied. Recently he started to work on the fossil birds from the Geiseltal - the results of these investigations will be presented on the SAPE-meeting in Beijing.

Stefan PETERS is still dealing with the early evolution of birds, in spite of some rather unpleasant experiences in the last time (see below). Another time-consuming task is the compilation of an annotated list of extinct and endangered birds in the collection of the Senckenberg-Museum.

DYKE, G. & G. MAYR (1999): Did parrots exist in the Cretaceous period? - *Nature*, 399: 317-318.

GÖHLICH, U. B. (in press): Aves. - in: DARGA, R., BÖHME, M. GÖHLICH, U. B. & RÖSSNER, G.: Reste höherer Wirbeltiere aus dem Alttertiär des Alpenvorlandes bei Siegsdorf/Oberbayern. - *Mitteilungen der Bayerischen Staatssammlung für Paläontologie und historische Geologie*, München, 39.

HAFFER J. (1982) - General Aspects of the Refuge Theory. In G. T. PRANCE (Ed.) *Biological Diversification in the Tropics*. *Columbia Univ. Press*, New York: 6-24.

HAFFER J. (1990) - Geoscientific aspects of allopatric speciation. In G. PETERS and R. HUTTERER (Eds.) *Vertebrates in the tropics*. *Museum Alexander Koenig*, Bonn: 45-60.

HAFFER J. (1992) - Parapatric species of birds. *Bull. B. O. C.*, 112 (4): 250-264.

- HAFFER J. (1993) - Time's cycle and time's arrow in the history of Amazonia. *Biogeographica. Comptes rendus des Séances de la Société de Biogéographie*, Paris, 69 (1):15-45.
- HAFFER J. (1997) - Contact zones between birds of Southern Amazonia. *Ornithological Monographs*, 48: 281-305.
- HAFFER J. (1997) - Foreword. Species Concepts and Species Limits in Ornithology. In del HOYO et al. (Eds.) *Handbook of Birds of the World*, vol. 4: 11-24.
- HAFFER J. (1997) - Alternative models of vertebrate speciation in Amazonia: an overview. *Biodiversity and Conservation*, 6: 451-476.
- HAFFER J. (1998) - Artkonzepte in der heutigen Zoologie. *Zool. Abhandl.*, Dresden, Bd 50/Suppl., Nr. 1, 19 p.
- MARTINI E. (1998) - Reste von Vogel-Eischalen im Schneckenmergel von Sieblos/Rhön (Unter-Oligozän). In E. MARTINI & P. ROTHE Hg.: Die alttertiäre Fossilagerstätte Sieblos an der Wassekuppe/Rhön. *Geol. Abh. Hessen*, 104: 265-270
- MAYR G. (1998) - A new family of Eocene zygodactyl birds. *Senckenbergiana lethaea*, 78 (1/2): 199-209.
- MAYR G. (1998) - Ein Archaeotrogon (Aves: Archaeotrogonidae) aus dem Mittel-Eozän der Grube Messel (Hessen, Deutschland) ? *Journal für Ornithologie*, 139: 121-129.
- MAYR, G. (1999): A new trogon from the Middle Oligocene of Cereste, France. - *Auk*, 116 (2): 427-434.
- MAYR, G. (1999): Caprimulgiform birds from the Middle Eocene of Messel (Hessen, Germany). - *Journal of Vertebrate Paleontology*, 19 (3): 521-532.
- MAYR, G. (1999): A mousebird (Coliiformes: Coliidae) from the Oligocene of Germany. - *J. Ornithol.*, 140.
- MAYR G. & DANIELS M. (1998) - Eocene parrots from Messel (Hessen, Germany) and the London Clay of Walton-on-the-Naze (Essex, England). *Senckenbergiana lethaea*, 78 (1:2): 157-177, 9 fig., 3 tabl., 5 pl.
- MAYR G. & PETERS D. S. (1998) - The mousebirds (Aves: Coliiformes) from the Middle Eocene of Grube Messel (Hessen, Germany). *Senckenbergiana lethaea*, 78 (1/2): 179-197, 5 fig., 9 tabl., 4 pl.
- MAYR, G. & D. S. PETERS (1998): On the systematic position of the Middle Eocene swift *Aegialornis szarskii* PETERS 1985 with description of a new swift-like bird from Messel (Aves, Apodiformes). - *Neues Jahrbuch fuer Geologie und Palaeontologie*, Monatshefte, 1999 (5): 312-320.
- PETERS D. S. (1998) - Erstnachweis eines Seglers aus dem Geiseltal (Aves: Apodiformes). *Senckenbergiana lethaea*, 78 (1/2): 211-212.

PETERS D. S. (1998) - On some principles of systematics. *Theory in Biosciences*, 117 (3): 231-236.

PETERS D. S. (1998) - Die Art und die Zeit - das problem der Palaeontologen. *Zoologisches Abhandlungen, Staatliches Museum fuer Tierkunde Dresden 50/Suppl. Nr 5*: 63-68.

PETERS D. S. (1998) - Einmal ist zehnmal - Parallelentwicklung in der Evolution. In BUCHER A. J. and PETERS D. S. (Eds.) - Evolution in Diskurs. *Verlag Friedrich Pustet, Regensburg*, p. 77-84.

PETERS D. S. (1998) - Laudatio fuer Wolfgang Friedrich Gutmann (1935-1997). In BUCHER A. J. and PETERS D. S. (Eds.) - Evolution in Diskurs. *Verlag Friedrich Pustet, Regensburg*, p. 7-12.

PETERS D. S. & JI QIANG (1999) - Musste *Confuciusornis* klettern ? *J. Ornith.*, 140: 41-50, 8 fig.

PETERS D. S. & JI QIANG (1998) - The diapsid temporal construction of the Chinese fossil bird *Confuciusornis*. *Senckenbergiana lethaea*, 78 (1/2): 153-155, 2 fig.

(This paper was submitted to "Nature" in March 1998. "Nature" rejected it and recommended "...publication in one of the many excellent journals specialising in the field". So it was published in *Senckenbergiana lethaea* in November 1998. In June 1999 "Nature" published another paper on "a diapsid skull" in *Confuciusornis*. The conclusions regarding the pattern in early evolution of birds and the kinesis of the diapsid skull are identical in both papers. To D. S. Peters' knowledge, both papers had at least one reviewer in common. The paper of PETERS & JI is not mentioned in the paper published by "Nature". Any comments ?)

STEPHAN B. (1997) - Reduktion von Fingerkrallen, Phalangen und Handschwingen. *Mitt. Zool. Mus. Berl.*, 73 (1997) Suppl.: Ann. Orn., 21: 45-57.

GREAT BRITAIN

As part of a larger program in ancient DNA at Oxford University, Alan COOPER has determined the sequence of the entire mitochondrial genomes of two moa species, *Dinornis giganteus* and *Anomalopteryx didiformis*. He is currently writing this project up and asks that anyone with new data on ratite fossils email him at alan.cooper@bioanth.ox.ac.uk if possible. Other projects include a study of archaeological macaw remains from sites in the southwest US. DNA has been obtained from specimens at several Anasazi and Mogollon sites (900-1200 AD), and appears to show that while both cultures were using Scarlet Macaws for ceremonial purposes, they were obtaining them via trade from different geographic regions of Central/South America. The exact location of these trade routes is of great interest to archaeologists studying the two cultures, and hopefully specimens from the Natural History Museum at Tring will allow the molecular biogeographic distribution of Scarlet Macaws to be sorted out. Interestingly, Helen James' DNA is a significant contamination risk in the ancient DNA laboratory at the Oxford University Museum of Natural History, because she was the previous occupant of the room! Anyone wanting authenticated DNA samples (for cloning/voodoo dolls etc) can contact Alan at the above address.

University Research Lecturer, Depts Biological Anthropology and Zoology, University of Oxford, 58 Banbury Rd, Oxford, OX2 6QS. Fax (44-1865) 274-699 Ph (44-1865) 271-263/274-700

(Office)/271-265 (Lab) email: Alan.Cooper@bioanth.ox.ac.uk

Joanne COOPER is pleased to say that she has submitted her PhD thesis 'Late Pleistocene avifaunas of Gibraltar and their palaeoenvironmental significance'. The Gibraltar work remains ongoing, in that she is now employed (albeit somewhat temporarily) by the Gibraltar Caves Project, in the Department of Palaeontology at The Natural History Museum, London (NHM) to assist with the processing of finds and also continue with the identification and interpretation of the 2 excavation seasons' worth of bird material she has not yet seen. So far, the combined species total from the four sites she studied (Gorham's Cave, Vanguard Cave, Ibex Cave and Devil's Tower Rock Shelter) stands at around 130 species - she is looking forward to finding out if there are any more lurking in there, and also hopefully to getting more specimens from some of the rarer species, which have included at least one new Western Palaearctic fossil record (see below).

In addition to the Gibraltar work, she has been looking at subfossil bird material from the Chatham Islands in the collections of the Department of Zoology at the NHM. These substantial collections, part of those made for Lord Walter Rothschild in the 1890s, have never been fully integrated with those held in the NHM's Department of Palaeontology. Supported by funding from the NHM's Zoology Research Fund and the Bird Exploration Fund, she has been examining and identifying the material, and also researching its provenance through the NHM's archives. Again, this is somewhat of an ongoing piece of work, and to really do justice to the material, she hopes to be able to visit colleagues and collections in New Zealand in the not too distant future.

Michael DANIELS sends the following information:

Late last year into 1999, I experienced some health problems mainly in respect of my right leg. This has left me lame and interfered with my driving capabilities, but I am able to cycle, not any great distance though. Having mobility difficulties has certainly influenced the frequency of Naze visits and only recently when I was given the opportunity to visit the place in a friend's vehicle was I able to make it to the hallowed shore and search for avian relics. Despite the threat of anti-erosion works marring the section, actually what has been done has hardly made any impression and the potential for new discoveries has virtually unaltered. The only influence on the potential for making further bird finds would appear to rest with natural causes, whether the strata now exposed still contains avian riches. I have mentioned in previous newsletters signs of dwindling bird resources, but my observations have frequently been countered as recoveries were, once more, renewed.

This year, more confined to home, nevertheless my activities in the realms of avian palaeo have not diminished and much time has been spent on several projects connected to the interest I have had a deal of welcome correspondence and am kept largely up to date with discoveries elsewhere due to the kindness of members sending me reprints and other useful documentation. The paper on Eocene parrots co-authored with Gerald Mayr was a nice outcome of our cooperation and his inclusion of Daniels Collection data in his other works demonstrates my willingness to see details of the material disseminated to a wider audience.

SAPE newsletters should not, in my view, be underrated for dispensing such useful information. Many specimens in my collection cannot be legitimately assigned to any established group. Some are clearly ordinal to major varieties long vanished; often of mosaic structure, how would these be designated especially when science seems to look for positive conclusions even if none are possible? But it is important to circulate details of discoveries and when I made reference to the Naze Phorusrhacid in

SAPE, this brought about an interesting exchange which I mentioned in the last edition. As a result, further enquiries encouraged by the interchange, not only the touracos, but even *Leptosomus* may well be bound up with the so called terror birds. So the SAPE publication does not have to be a high powered document, but a carrier of developing thought and ideas. I admit to having made full use of the outlet and I hope others would wish to do so equally. Otherwise one has to wait, sometimes indefinitely, to hear about something of consequence until the author can overcome all the hazards of getting prestigiously published. And, it has to be said, those who have access to house journals as outlets for their writings, or have institutional positions of authority, have a decided advantage, unfair advantage sometimes, over others who are not so privileged and who may have to suffer the ravages of anonymous peer review or other undemocratic processes. In sport, referees are around to be seen and often their decisions are vociferously challenged; it always puzzles me why academia needs this secretive form of critical appraisal.

Sometimes it is a little difficult to appreciate that it is now a quarter of a century ago that we first made the avian discoveries at a highway excavation site at Birchanger in the north west region of Essex. It was not until late in 1974 that attention focussed on Walton-on-the Naze because it seemed, from the memory of a field trip some years earlier, that the strata appeared similar to the inland locality, which by then had disappeared under the concrete road surface. On the very first return trip to the Naze, once more, we found birds and due to that expedition, the many finds made of these animals since that time. Today the Daniels Collection catalogue lists the remains of over 700 individuals, 21 from Birchanger and 694 from Walton.

Much time has been devoted to drawing aspects of complete or partial avian limb bones concentrating, so far, on the tibiotarsi and tarsometatarsi in particular of which there are many specimens in the collection. Each time I complete an illustration this is compared to others which have already been assembled onto plates. By use of the reversal tool that is available on my scanner software I am able to produce mirror images and on a number of occasions undetected counterparts of fossils were located simply due to the convenience of using figures produced by this facility. Further I was encouraged, by the success of the endeavour, to extricate bones from matrix so that I could produce more drawings. WN. 92720 is a specimen typical of the manner in which Naze avian relics were deposited on the ancient seafloor. The bones being rarely articulated and clumped together in confused association. Many elements of this bird were complete but criss-crossed and overlaid by others and I initially felt reluctant to disassemble the slab being, in itself, of probable taphonomic interest. Ultimately, I managed to release the perfect tarsometatarsus from beneath the equally complete and hardly distorted furcula. When a visitor first observed this bird it was pronounced as the earliest diver. Certainly it is clearly a diving bird of some description, but not seemingly connected with the *Gaviae* nor with the *Podicipediformes*. If we needed to produce a manifestly typical example of a lower Eocene mosaic bird then this individual would fulfil the role perfectly. With the benefit of viewing every detail of the tarsus, then by token of this it is clearly a duck, nearest perhaps to *Mergus* or *Bucephala*, but the beak is certainly not anserine, more in keeping with say *Fulica*. The coracoid, again totally whole, is convincingly petrel-like. I have no doubt that all the remains are of one bird, although cases of multiple burial are not uncommon from this low London Clay deposit. This surely must be a prime example of the pitfalls in the categorical assignment of single element items when at best they required only speculative referral. We know that ducks were in existence at least as far back as London Clay times (54 MYBP). My collection also contains examples of *Procellariiformes* with my possession of a substantially preserved individual that seems to reflect the osteology of that group without 'hybrid' influence. Amongst the larger Naze specimens are several that have been viewed by various authorities as bustards, *Otididae*, alternatively

as Ibises, Threskiornithidae. Neither satisfactorily answers the question of identity; the principle specimen, WN.91677, comes with a rather beautiful and little distorted skull and to me this is more reminiscent of certain Charadriiformes say of Haematopus or, due to its rather small size in relation to the post-cranial skeleton, the Limosids. Oh yes, Storrs Olson, I noted, suggested Thick-knee maybe! The ratio of the fossil's limb elements are not far distant from the Messel Rhynchaetites and I feel sure my good friend Gerald Mayr will find some satisfaction in this, justifying his belief in an ibis connection here!

Unless her plans have altered, I understand that our Secretary is retiring from her position in SAPE and this newsletter will be her last official undertaking. I am sure she will not be withdrawing completely from the avian-palaeo scene and I would personally like to thank her for her patience with me in the form of conversation I conducted in twelve of the thirteen editions she produced.

Michael C. Daniels
 Holland-on-Sea
 Essex UK
 September 1999

		London Clay			
Living group	Earliest Record	Similar	Some	Vague	Possible relatives elsewhere
See cautionary note			similarity	similarity	Eocene and earlier
Paleognath/Lithornithid	P	40			
Diving bird - petrel/duck	UC	1	3		UC
Petrel	LE N	2	1		
Pseudodontorn	LE N	1			
Tropicbird	LE N		1		
Ibis mosaic	LE N		4		ME Europe
Screamer	LE N	7	5		LE N. America
Swan	LE N		1		
Duck	LE N	8	1		
Hawk	LE N		1	1	UE Europe
Accipitrine/coraci mosaic	LE N		3		
Falcon/caracara	LE N		1		
Osprey	LE N		1		
Fowl/gamebird	LE N	6	4		
Moundbuilder	LE N		2		UE Europe
Rail	UP		2		UP
Finfoot/mesite	LE N		3		

Bustard	LE N		4	3	
Gruiform/Charadriiform	LE N		7		LE N. America
Button-quail	LE N	1	3		
Messelornithid (Messerrail)	?P	1			UP Europe, LE N. America
Rail/wader	LE N		7		
Pratincole/plover	LE N	1			
Oystercatcher	LE N		2		
Jacana	LE N		5		
Thick-knee	LE N		2		
Gull	LE N		1		
Tern	LE N	3			
Auk	LE N		1		
Dove	LE N	5	4	2	
Pigeon/sandgrouse	LE N		?		
Parrot	LE N	9	4		
Phorusrhacid	LE N	5	2		
Touraco also Cuckoo-roller	LE N	4	10		LE Europe
Hoatzin etc mosaic	LE		3		LE N. America
Cuckoo	LE N		1		
Cuckoo/owl mosaic P. Olsoni	LE N	17	4		LE N. America
Owl	MP	4	9		MP N. America
Nightjar	LE N		2		?LE N. America
Potoo/frogmouth etc	LE N		2		
Oilbird	LE		2		LE N. America
Caprimulgiform	LE		5	8	LE N. America
Swift	LE N			1	
Crested swift	LE	20	8		LE N. America
Early Swift	LE N	2			
Trogon	LE N	4	18	2	
Mousebird	LE N		4	4	
Coly mosaic	LE			?	LE N. America
Coraciiform	LE		20	5	LE N. America
Kingfisher	LE N		2		

Roller-like	LE N		2		
Tody	LE N		2		
Motmot-like	LE N		10	4	
Hoopoe	LE N	14	1		ME Europe
Hoopoe mosaic ?sister group	LE N	8			
Wood-hoopoe mosaic	LE N	14	1		LE N. America
Perching bird mosaic	LE	30	35		LE N. America, ?Australia
Passerine/coly etc mosaic	LE N	?			

Notes on the accompanying table NAZE LOWER EOCENE BIRDS

Up-dated from the listing in SAPE 1994 and that given in Feduccia 1996, (The Origin and Evolution of Birds).

Entries in the first column are mostly of modern avian groups, therefore assignment of fossil birds to such owes more to convenience than to reality, designed to give at least some general impression of type. Thus perhaps best to add '-like' to entries where appropriate.

Abbreviations: Epoch etc: UC = Upper Cretaceous; P = Palaeocene; MP = Middle Palaeocene; UP = Upper Palaeocene; LE = Lower Eocene; ME = Middle Eocene; UE = Upper Eocene.

N = Naze.

Various authorities have examined the collection and a considerable number of determinations reflect opinions resulting from these inspections. New entries including those for Pseudodontorn, Turnix, Leptosomus, are serious additions based on careful scrutiny. The last named showing characters that may add a further link with the Phorusrhacids and Musopagids, discussed in my last SAPE communication.

Of the 694 individual birds acquired from the Naze, about 450 can be provisionally referred to type. The remainder, 240 or so, include a portion probably indeterminate, too devoid of characters to assist classification. There is an appreciable number of specimens, example vertebra, that need more resolute attention than is normally given to items less popular with researchers. Many fossils have potential for listing, but their form sheds little or no light on affinities; they probably represent groups of birds having no recent descendants. Some measure of Lower Eocene avian ecology may be deduced from the figures; I calculate that land birds outnumbered waterbirds by about five to one, that is if the deposition of remains fairly reflects the populations of the region.

Gareth DYKE continues with his PhD thesis work on fossil birds from the London Clay Formation.

Julian Pender HUME has recently returned from the Mascarene Islands. The main purpose of his visit was to initiate research for a PhD project. He has already completed a geological and topographical study of the Mare aux Songes and a topographical study of Le Pouce. The thesis title is going to be "The

Vertebrate Paleontology of the Western Indian Ocean, with special reference to the Mascarene Islands". It is a joint project between the Natural History Museum, Bird Division, Tring, and the Palaeontology Research Group, Portsmouth University. The aim is to produce a thesis of approximately 40 % geology and 60 % palaeontology. He has chosen a broad title to allow scope for research on any of the other Indian Ocean Island Group.

Jolyon PARISH has finished his course at Imperial College studying geology and palaeontology (BSc.) and has obtained a first class degree. He has been unable to obtain funding for a PhD. or MSc. next year so he is taking a year out. He is currently working on the osteology of the dodo and the solitaire (*Raphus* and *Pezophaps*).

John R. STEWART 's thesis (Title: The Evolution of Quaternary birds in the Western Palaearctic: Aspects of Taxonomy and Ecomorphology.) was passed in June. He has been busy trying to write up some of the key parts of it since then. This includes a method for trying to elucidate relative migratory behaviour in fossil birds and some interesting morphometric patterns amongst modern and fossil starlings in Europe which seem to have implication regarding their mode of speciation. He plans to talk at the next SAPE meeting about the timing of continental bird speciation.

BOISSEAU S. & YALDEN D. W. (1998) - The former status of the Crane *Grus grus* in Britain. *Ibis*, 140:482-500.

COOPER J. H. (in press) - First fossil record of Azure-winged Magpie *Cyanopica cyanus* in Europe. *Ibis*. (Due January 2000)

DAVIS P. G. (1997) - The Bioerosion of Bird Bones. *Intern. Journ. Osteoarchaeol.*, 7: 388-401.

DAVIS P. G. & BRIGGS D. E. G. (1998) - The Impact of Decay and Disarticulation on the Preservation of Fossil Birds. *Palaeos*, 13: 3-13/

DYKE G. J. (1998) - Does archosaur phylogeny hinge on the ankle joint ? *Journ. Vert. Paleont.*, 18 (3): 558-562.

DYKE, G.J. (1999) - Morphological systematics of stem-group Psittaciformes. Abstracts, *Systematics Association Biannual Meeting*, Glasgow.

DYKE G. J. & COOPER J. H. (in press) - A new psittaciform bird from the London Clay (lower Eocene) of England. *Palaeontology*, 43(2). (March 2000).

DYKE, G.J. and MAYR, G. (1999) - Did parrots exist in the Cretaceous ? *Nature*, 399, 317-318.

DYKE G. J. and THORLEY J. (1998) - Reduced Cladistic Consensus Methods and the Inter-Relationships of *Protoavis*, *Avimimus* and Mesozoic Birds. *Archaeopteryx*, 16: 123-129.

EASTHAM A. and GWYNN I. A. (1997) - Archaeology and the electron microscope. Eggshell and neural network analysis of images in the Neolithic. *Anthropozoologica*, n° 25-26, p. 85-94, 4 fig., 3 tabl.

HARRISON, C.J.O. and STEWART, J.R. 1999. The birds remains. *In*: M.B. Roberts and S.A. Parfitt (Eds.). The Middle Pleistocene Site at ARC Eartham Quarry, Boxgrove, West Sussex, U.K. *English*

Heritage Monograph Series, 16, London.

STEWART, J.R. and HERNANDEZ CARRASQUILLA, F. 1997. The identification of extant European bird remains: a review of the literature. *International Journal of Osteoarchaeology*, 7: 364 - 371.

STEWART, J.R. 1997. *Pinguinus impennis*, extinct great auk. In: M.B. Roberts, S.A. Parfitt, M.I. Pope and F.F. Wenban-Smith. Boxgrove, West Sussex: Rescue excavations of a Lower Palaeolithic landsurface (Boxgrove Project B, 1989 - 91). *Proceedings of the Prehistoric Society*, 63: 303 - 358.

STEWART, J.R. 1996. Quaternary birds from Torbryan Valley. In: D.J. Charman, R.M. Newnham and D.G. Croot (Eds.). The Quaternary of Devon and East Cornwall: Field Guide. *Quaternary Research Association*, London, England.

STEWART, J.R. 1999. The avifauna. In: N.M. Ashton, S.G. Lewis and S. Parfitt.(Eds.) Excavations at the Lower Palaeolithic Site at Barnham 1989 - 94. *British Museum Press*.

WHARTON D. S. (1999) - The evolution of the brain and braincase from the crocodile to the bird, focusing on the Theropod-Bird transition. *IV European workshop on Vertebrate Paleontology*, Albarracin, Spain, Abstracts, p. 84

WILKINSON, K.N. and STEWART, J.R. 1998. Small vertebrates remains. In: M. Tingle (Ed.). The Prehistory of Beer Head: Field survey and excavation at an isolated flint source on the South Devon coast. *BAR British Series*, 270: 23 - 26.

ITALY

The paper by Monica GALA and Antonio TAGLIACOZZO "Sfruttamento e macellazione degli Anseriformi nel giacimento dell'Epigravettiano finale di Grotta Romanelli (LE)" will be published in "Atti del 2° Convegno Nazionale di Archeozoologia". Monica and A. Tagliacozzo are also preparing a paper on the birds from the layers 24-22 (Aurignacian and Early Gravettian) of Grotta Paglicci.

For the moment Monica is doing archaeological excavations in Roma, where there are many works for the preparation of the Millenium celebration. She received two small grants from the Museo Pigorini, for studying birds, and she hopes that it will be possible for her to get a financial support to pursue her studies on fossil birds.

Marco PAVIA is still involved in his PhD project on the Neogene-Pleistocene avifauna of the Southern Italy and Sicily. He also found new material from the Gargano region, during an excavation in June. He found new material becoming from some sites in the Siracusa area, southern Sicily, stored in museum collection, and during October 1999 he is involving in a new field work to visit the fossil localities in Sicily.

He is also working on the revision of the Mio-Pliocene avifauna from the Gargano, studied by Ballmann in 1973 and 1977, because he found many new material, both in Florence and Leiden collections. The new sample of bone is larger than the one studied by Ballmann, with many new forms and undescribed bones. He is also working on two skulls from the Plio-Pleistocene of the Samoggia River, near Bologna, a typical fossil-lagerstetten with a very big fish fauna. The skulls are referred to Piciformes and Passeriformes, in particular to *Coccothraustes*.

He organized, during the 10th Italian Meeting of Ornithology a section about the evolution of the

Italian avifauna, in which he was glad to invite C. Mourer-Chauviré to speak about the tertiary avifauna of Italy.

PAVIA M., 1997 - L'avifauna del Pleistocene medio di Spinagallo (Siracusa): studio sistematico e paleoecologico. *Unpublished Thesis*, 155 p.

PAVIA M., 1999 - Un cranio di *Bubo insularis* Mourer-Chauviré & Weesie, 1986 (Aves, Strigidae) nelle brecce ossifere del Pleistocene di Capo Figari (Sardegna, Italia). *Accademia delle Scienze di Torino. Atti Sc. Fis.*, 133: 10 p.

PAVIA M., 1999 - Le avifaune pleistoceniche italiane: stato delle conoscenze. *Avocetta*, 23: 146.

PAVIA M., in press - Analisi archeozoologica dell'avifauna del sito medioevale del Castello di Moncalieri. *Atti 2° Convegno Italiano di Archeozoologia*.

NEW ZEALAND

Trevor WORTHY's papers concerning the NZ late Quaternary published since the last newsletter are listed below. The paper entitled 'What was on the Menu' details the incidence of all NZ birds in NZ archaeological sites. A paper summarising the fossil fauna of Niue was published (*Notornis*) and descriptions of the new taxa (*Nycticorax* sp and *Gallirallus* sp.) with David STEADMAN are submitted for publication (*Pacific Science*). A paper with Tim FLANNERY listing the results of a collection made in 1982 in the Southern Highlands of Papua New Guinea gives much data on the diet of Sooty owls in the caves they were exploring then.

The Fiji explorations in collaboration with A. ANDERSON of Australian National University have produced. The tantalizing fragments of the first discoveries have been augmented by some spectacular discoveries so now Trevor can report the following: The new herpetofaunal species include a crocodylian, a large terrestrial iguana, a large frog and a tortoise. The birds not to be outdone include a 10-15kg megapode only a little smaller than *Sylviornis*, but not closely related. A similar-sized large terrestrial pigeon parallels the dodo of the Mascarenes. Other new taxa include a new fruit pigeon, a flightless *Megapodius*, and a long-billed rail. An initial report on some of this material is submitted to a journal and descriptions of the megapodes are underway.

Joseph McKEE reports the collection of further pseudodontorn (Pelagornithidae) and other isolated marine birdbones from the Pliocene Ohawe Sandstone at Hawera, North Island, New Zealand. A few isolated birdbones have been collected from a second North Island Pliocene site. Progress is being made on developing a depositional stratigraphic framework for the sites, based on the fifth, sixth and seventh order Milankovitch cycles. This will give an internal relative time frame for the Pliocene fossil birds and other marine vertebrates. Miocene sites, in the past year, have proven unproductive in the search for fossil birds.

WORTHY, T. H., 1998. Quaternary fossil faunas of Otago, South Island, New Zealand. *Journal of the Royal Society of New Zealand* 28(3): 421-521.

WORTHY, T. H., 1998. The Quaternary fossil avifauna of Southland, South Island, New Zealand. *Journal of the Royal Society of New Zealand* 28(4): 537-589.

WORTHY, T. H., 1998. Fossils indicate *Pelecanoides georgicus* had large colonies at Mason Bay, Stewart Island, New Zealand. *Notornis* 45: 229-246.

WORTHY, T. H., 1998. Fossil avifaunas from Old Neck and Native Island, Stewart Island - Polynesian middens or natural sites? *Records of the Canterbury Museum* 12(2): 49-82.

WORTHY, T. H., WALTER, R. and ANDERSON, A. J., 1998. Fossil and archaeological avifauna of Niue. *Notornis* 45: 177-190.

WORTHY, T. H. and FLANNERY, T. F., 1998. Fossil bones from Mamo Kananda, Southern Highlands, Papua New Guinea. *Helictite* 34 (2): 49-54.

WORTHY, T. H., 1999. What was on the menu - avian extinction in New Zealand. *NZ Journal of Archaeology* 19: 125-160.

NORWAY

VALEN V, LARSEN E., MANGERUD J., HUFTHAMMER A. K. (1996) - Sedimentology and stratigraphy in the cave Hammsundhelleren, western Norway. *Journal of Quaternary Science*, vol. 11, n° 3, p. 185-201, 14 fig., 3 tabl.

POLAND (Krakow)

Zygmunt BOCHENSKI wrote and submitted to the Great Encyclopedia the first set of entries on fossil birds and now he prepares further ones. Together with Zbigniew M. Bochenski and Teresa Tomek he prepared a paper on very numerous fossil bird fauna from "Oblazowa 1" for the monograph of this famous archaeological locality situated in the Sub-Tatra region. Together with Teresa he finished the identification of bird remains from the Holocene locality El Nabta in S Egyptian Sahara and now he works on completing the paper concerning ecological implications of the bird ensemble for archaeological monograph. Another paper on ornithogeographic problems will be most probably prepared in future.

Zbigniew M. BOCHENSKI and Teresa TOMEK worked on the comparative osteology of European corvids (including a guide to the identification of their bones). The paper will be finished and submitted for publication later this year.

Teresa TOMEK prepared description of bird remains (the part of general chapter on animal remains) for the monograph of the excavations in Deszczowa Cave. Together with Zygmunt she worked on the birds from El Nabta and together with Zbigniew she worked on the osteology of European corvids. She spent plenty of time on the final editorial preparation of the first volume of her monograph of the recent bird fauna of North Korea, which is now in press and will be ready later this year.

The handbook "Podstawy archeozoologii - szczatki ptakow" [= Fundamentals of Archaeozoology - Bird Remains] was submitted to PWN - Polish Scientific Publishers in early 1999 and now, after two critical reviews, it is prepared for publication. We hope that it will be published in 2000.

ROMANIA

Eugen KESSLER got the university professor degree at the end of the last year. He is going to write an applied osteometrical guide.

Erika GAL continues her PhD dissertation on the Pleistocene bird fauna of Romania. She spent the most part of the year at Budapest, having a research fellowship and she studied the fossil bird remains from Early and Middle Pleistocene Romanian localities (e.g. Baile Herculane, Betfia, Brasov, Rev). She is also working on bird remains from the following Hungarian localities: Matraszolos (Miocene) and Kalvaria Cave (Upper Pleistocene). Erika was asked to identify the bird remains coming from an international archaeological excavation made at Schela Cladovei (Iron Gates Region in Romania). The results will be presented during the conference being held in Edinburgh 2000.

She attended the 2nd Hungarian Meeting of Palaeontology held at Noszvaj in May 1999, a world meeting of Hungarian PhD-students at Budapest (May 1999) and the 2nd International PhD Conference at Miskolc (Hungary) in August 1999.

During her one month study trip at the Claude Bernard University - Lyon 1, France, Erika studied some remains from Betfia and Bugiulesti (Early Pleistocene, Romania) and from Matraszolos (Miocene, Hungary).

GAL E. (1998) - Bird Fauna of Gura Cheii Cave from Rasnov (Brasov County). *Studia Universitatis Babes-Bolyai, Biologia*, 43 (1-2): 88-93. (in Romanian, with English abstract).

GAL E. (1999) - New data to the Early Pleistocene Bird Fauna of Betfia. *2nd Hungarian Meeting of Paleontology - 1999. majus 7-8., Noszvaj (Hungary)*. Special Volume p. 9. (In Hungarian).

GAL E. (1999) - Late Pleistocene Bird Remains from Grotta Romanelli (Apulia, Italy). *2nd International Conference of PhD Students, Miskolc, Hungary*, 8-14 August 1999, Section Proceedings - Natural Sciences, p. 121-125.

KESSLER E. and CODREA V. (1996) - A bird from the Middle Miocene (Badenian) of Zarand Depression (Western Romania). *Studia Universitatis Babes-Bolyai, Geologia*, 41 (2): 127-130.

KESSLER E., CODREA V. and VREMIR M. (1998) - A fossil bird from the lower Oligocene of Cluj-Napoca (Western Romania). *Studia Universitatis Babes-Bolyai, Geologia*, 43 (2): 7-12.

KESSLER E. and GAL E. (1999) - The revision of the Pleistocene bird remains from Malta found in the paleontological collection of the Hungarian Geological Institute. *2nd Hungarian Meeting of Paleontology - 1999. majus 7-8., Noszvaj (Hungary)*. Special Volume p. 12. (In Hungarian).

RUSSIA

Gennady BARYSHNIKOV participated at archaeological excavations of AKHSTYRSAYA Cave near Adler (Sochi City). The cave is situated near Mzymta River in 15 km from Black Sea in 300 m a. s. l. Layers 3-5 contain Mousterian industry, layer 2 - Upper Palaeolithic tools. Dating: 112 000+ 22 000 for layer 5/2, 35 000+ 2 000 for upper part of layer 3, 19 000+ 500 for middle part of layer 2. Paleolithic layers supplied a small collection of bird remains. The collection from the elder excavations also studied

(1937/1938, 1961, 1963, 1978). Total species composition of (identification of Gennady BARYSHNIKOV, Andrey PANTELEEV and Olga POTAPOVA): *Hirundo rustica*, *Pyrrhocorax pyrrhocorax*, *Pyrrhocorax graculus* (layer 3), *Accipiter gentilis*, *Aquila chrysaetos*, *Columba livia*, *Melanocorypha* sp., *Sitta europaea*, *Pica pica*, *Pyrrhocorax pyrrhocorax* (layer 2), *Phasianus colchicus*, *Turdus pilaris*, *Pyrrhocorax graculus* (mixed layers).

In the last two years Andrei PANTELEYEV investigated with varied fossil birds. His attention was mainly concentrated on Upper Cretaceous bones from Dzyrakuduk (Uzbekistan). The coracoids of the Enantiornithes have been described in detail. On the base of additional material, the systematic of the Enantiornithes from the Kyzylkum Desert, which have been published earlier (Panteleyev, 1998), has been further elaborated. At the present time, only on coracoids, 13 forms can be distinguished, which belong to 6 genus and, at least, to 3 families.

In June and July 1999, Andrei took part to the expedition on the Don and Volga rivers. He found two new sites (in Volgograd and Saratov Provinces), which opens a good perspective for the research of Cretaceous birds. However the exploitation of these sites is problematic because of the lack of finances.

Concerning the Paleogene birds, Andrei has described a new form of owl, *Aurorornis taurica*, n. g. n. sp. (Strigiformes: Protostrigidae) from the Upper Eocene of the Crimea. The complete tarsometatarsus is very similar, in size and proportions to *Aegolius funereus*. But it is different from all fossil and recent Strigiformes in the morphology of the proximal end. The main difference is the very short (in proximo-distal direction) crista medialis hypotarsi.

Asiavis phosphatica, from the uppermost Middle Eocene of Uzbekistan, is redescribed as a member of the Anseriformes (subfamily Cygninae). Formerly it was placed in the Gruiformes (uncertain familial position), and now it is the oldest swan.

Besides, A. Panteleyev continued the study of Quaternary birds from South Siberia and Mongolia.

ILIYCHEV V.D., KUROCHKIN E.N. and RUSTAMOV A.K. George Petrovich Dementiev (1898-1998). *Moscow Ornithologists*. Moscow: Moscow State University. p. 78-88 (in Russian).

KUROCHKIN E., GEORGE U. 1998. Flying Dragons of the Jurassic Period. *GEO*, 9: 120-132 (in Russian).

KUROCHKIN E.N., D.I. BURCHAK, L.K. GABUNIYA, A.K. VEKUA, I.A. DUBROVO, L.P. TATARINIV, B.A. TROFIMOV. 1998. Nikolay Iosifovitch Burchak-Abramovitch (1900-1997). *Paleontologicheskyy Zhurnal*, 6: 111-112.

KUROCHKIN E.N. 1998. A new view on the evolution of birds. Interview. *Nauka i zhizn'*, 11: 2-6 (in Russian).

KUROCHKIN E. 1999. Dinosaurs and Birds. *GEO*, 4: 111-113 (in Russian).

KUROCHKIN E. 1999. A new large enantiornithid from the Late Cretaceous of Mongolia. *Proceedings of the Zool. Inst. of Russian Acad. of Sciences*, 277: 132-147 (in Russian).

KUROCHKIN, E.N. & WALKER, C.A. 1999. What were the Enantiornithes? In: Adams, N.J. & Slotow, R.H. (eds.). *Proc. 22 Int. Ornithol. Congr.*, Durban: 3219-3222. Johannesburg: BirdLife South Africa.

KUROCHKIN E.N. 1999. Atlas of Dinosaurs and Other Fossil Animals. Moscow: *Rosmen*. 72 p. (in

Russian).

PANTELEYEV A. V. (1997) Bones of birds from the settlements of ancient man on Sakhalin Island. *Herald of Sakhalinical Museum*, 4: 281-285 (in Russian).

PANTELEYEV A. V. (1997) The remains of birds from the archaeological locality Ivanovka (Sakhalin). *Russ. J. Ornith.*, 1997, Express-issue 9: 8-10 (in Russian).

PANTELEYEV A. V. (1998) Late Pleistocene birds of Mongolia. Poster Abstracts, n° 139, in Adams, N. J. & Slotow, R. H. (eds.). *Proc. 22 Int. Ornithol. Congr.*, Durban. Ostrich, 69: 409.

PANTELEYEV A. V. (1999) The history of investigations of Quaternary birds in Asian part of Russia and Mongolia. *Rus. J. Ornith.*, Express-issue 72: 3-17 (in Russian).

PANTELEYEV A. V. (1999) The systematic position of the Eocene bird *Asiavis phosphatica*. *Zoosystematica Rossica* (in press).

PANTELEYEV A. V. (in press) Remains of Pleistocene birds from Denisova Cave. *Denisova Cave*, vol. 2 (in Russian).

PANTELEYEV A. V. (in press) New species of an owl and other birds from the Eocene of Crimea. *Rus. J. Ornith.*, Express-issue (in Russian).

SPAIN

Antonio SANCHEZ MARCO is working with Tertiary and Quaternary remains from the Iberian peninsula. Most time is dedicated to the Pleistocene complex of outcrops of Atapuerca. He is paying attention to some issues. Rich Quaternary collections allow approaches to main ecological and climatic traits that shaped the Pleistocene. Also, some Tertiary localities have yielded interesting data to know the taxonomic composition of the corresponding avian faunas. And finally, an important issue connected with the two prior matters is the taxonomic avian shift that occurred during the Pliocene towards the Quaternary ornithocenoses.

The main activity of Bartomeu SEGUI CAMPANER during the first part of 1999 has been finishing the manuscript and preparing his dissertation for his PhD, which was defended on 23 March 1999. After this date, he has been working on a book for the local wildlife authorities, dealing with the management of gamebirds and other related subjects. In the field of paleornithology he has finished some old manuscripts and he has started new ones.

J. C. RANDO finished in last February his Ph. D. Thesis, which was on Human Genetic. After that he begun with a field project on an endemic lizard from Canary Islands, and now he is working on it. This lizard was believed to be extinct and was recently discovered alive. Because of these, his works on avian paleontology are going slowly. He hopes that in the future he could spend all his research time on fossils vertebrates from Canary Islands.

ALCOVER, J. A. , BOVER, P. i SEGUI, B. 1999. Una aproximació a paleoecologia de les illes. In: *Ecologia de les Illes. Monografies de la Societat d'Història Natural de les Balears*, 6.

AMO O., AZANZA B., SANCHEZ A., SANCHEZ I. M., and MORALES J. (1999) - First record of ornitoid prismatic eggshells from the Miocene of Spain. *IV European workshop on Vertebrate Paleontology*, Albarracin, Spain, Abstracts, p. 15.

ENCINAS J. A. and ALCOVER J. A. (1997) - El Jaciment fossilífer de la Cova Estreta (Pollença). *Endins*, nº 21, p. 83-92, 9 fig.

JAUME D., McMINN M. and ALCOVER J. A. (1993) - Fossil birds from the Bujero del Silo, La Gomera (Canary Islands), with a description of a new species of quail (Galliformes, Phasianidae). *Bol. Mus. Mun. Funchal*, Sup. nº 2, p. 147-165, 2 fig., 3 tabl.

RANDO J. C., LOPEZ M. and SEGUI B. (1999) - A new species of extinct flightless passerine (Emberizidae: *Emberiza*) from the Canary Islands. *The Condor*, 101: 1-13. (New species : *Emberiza alcoveri*)

ROSAS A., CARBONELL E., CUENCA G., GARCIA N., FERNANDEZ JALVO Y., MADE J. van der, OLLÉ A., PARES J. M., PEREZ GONZALEZ A., SANCHEZ MARCO A., SANCHEZ CHILLON B. y VALLVERDU J. (1998) - Cronología, bioestratigrafía y paleoecología del Pleistoceno Medio de Galeria (Sierra de Atapuerca, España). *Revista Española de Paleontología*, 13 (1): 71-80.

SANCHEZ MARCO A. (1998) - The transition from Magdalenian to Epipaleolithic in the Spanish mediterranean: El Tossal de la Roca: 635-640. *Proc. XIII U. I. C. P. P. Congr.*, A.B.A.C.O. Edizioni, Forli, Italia.

SANCHEZ MARCO A. (1999) - *Ibis eremita*. Restos fósiles hallados en yacimientos españoles. *Quercus*, March, p. 48-49.

SANCHEZ MARCO A. (1999) - Nuevas aves fósiles del yacimiento mesopleistocénico de Ambrona (Soria, España). *Trabajos de Prehistoria*, 56 (1): 115-118.

SANZ J. L. and PÉREZ-MORENO B. P. (1999) - The beginning of the modern avian flight. IV European workshop on Vertebrate Paleontology, Albarracin, Spain, Abstracts, p. 83.

SEGUI B. (1999) - *Els ocells fòssils de Mallorca i de Menorca. Successió estratigràfica d'aus en els reblliments carstics de les Gimnesies*. Tesis doctoral. Universitat de les Illes Balears, 194 p., nomb. tabl., fig., pl.

SEGUI, B. (in press november 1999). A late Tertiary Woodcock from Menorca, Balearic Islands, Western Mediterranean. *The Condor*.

SEGUI B., BOVER P., TRIAS M. and ALCOVER J. A. (1998) - El jaciment fossilífer de la Cova C-2 (Ciutadella de Menorca). *Endins*, nº 22, p. 81-97, 7 fig.

TRIAS M., OTTEWALDER J. A., JAUME D. and ALCOVER J. A. (1997) - Una campanya en la República Dominicana. Resultados preliminares. *Endins*, nº 21, p. 63-74, 2 fig.

SWEDEN

Tommy TYRBERG really does not have much to report this year. He has written two short papers on subfossil birds from Spain in collaboration with Francisco HERNANDEZ, one of these has been published and the other is in print. He has tried to keep his Internet site on Pleistocene birds of the Palearctic up to date and keep on working on his Bibliography of Avian Paleontology. This is slow work, but he feels that the list of references (ca 10,000) is now fairly complete, but there is still a very large amount of checking and indexing to be done. Even so the database is complete enough for searches to be possible, and he will try to oblige if anyone wants help with a literature search, though he can't guarantee the completeness of the results.

HERNANDEZ CARRASQUILLA, F. & TYRBERG, T. 1999. The Demoiselle Crane *Anthropoides virgo* in the Iberian Peninsula. A Summary of Historical and Subfossil Data. *Ardeola* 46(1):97-100.

TYRBERG, T. & MILBERG, P. 1998. *Nothofagus* - Gondwanaträdet. *Svensk Botanisk Tidskrift* 92:185-197.

UNITED STATES

Berkeley, California

PADIAN, K., and L.M. CHIAPPE. 1998. The origin and early evolution of birds. *Biological Reviews*, Cambridge, 73: 1-42.

PADIAN, K., and L.M. CHIAPPE. 1998. The origin of birds and their flight. *Scientific American*, February 1998, pp. 38-47.

PADIAN, K. 1998. When is a bird not a bird? *Nature*, 393: 729-730.

STIDHAM T. A. (1998) - A lower jaw from a Cetaceous parrot. *Nature*, 396:

Chapel Hill, North Carolina

FEDUCCIA A. (1999) - Commentary to the paper by Wagner G. P. and Gauthier J. A. 1, 2, 3 = 2, 3, 4: Accommodating the cladogram. *Proc. Natl. Acad. Sci.*, 96: 4740-4742.

Gainesville, Florida

Dave STEADMAN and his students have had a very active year. Three students have completed their M.S. theses, namely Kelley R. Reis (Holocene Vertebrates from Palawan, Philippines), Jeffrey K. Sailer (Ecomorphology of *Ptilinopus* Fruit-Doves), and Markus P. Tellkamp (Community Ecology of Cloud-Forest Birds in Ecuador). Matthew I. Williams is nearing completion of his M.S. thesis on the generic-level systematics of New World parrots. At various times during April-August 1999, Dave did field work at late Quaternary sites in Samoa, Fiji, Tonga, Tobago, and Trinidad. Currently he is devoting most of his lab time to studying collections of avian fossils from these islands as well as others in Oceania and the Caribbean. The UF skeleton (and skin) collection of birds is growing rapidly. Andrew W. Kratter and Dave are teaching a graduate course (Fall 1999) called "Avian Anatomy and Specimen

Preparation." We have nine students who are eagerly learning the insides and outsides of birds.

MARTIN, P.S. & D.W. STEADMAN. 1999. Prehistoric extinctions on islands and continents. pp. 17-55 in R.D. MacPhee, ed. *Extinctions in Near Time: Causes, Contexts and Consequences*. *Plenum Press*, New York.

STEADMAN, D.W., R.E. FUNK & T.W. STAFFORD, Jr. 1997. Non-association of Paleoindians with AMS-dated late Pleistocene mammals from the Dutchess Quarry Caves, New York. *Quaternary Research*, 47: 105-116.

STEADMAN, D.W., R.L. NORTON, M.R. BROWNING & W.J. ARENDT. 1997. The birds of St. Kitts, Lesser Antilles. *Caribbean Journal of Science*, 33: 1-20.

STEADMAN, D.W. 1997. A re-examination of the bird bones excavated on New Caledonia by E. W. Gifford in 1952. *Kroeber Anthropological Society Papers*, 82: 38-48.

STEADMAN, D.W. 1997. Prehistoric extinctions of Polynesian birds: reciprocal impacts of birds and people. pp. 51-79 in P.V. Kirch & T.L. Hunt, eds. *Environmental and Landscape Change in Prehistoric Oceania*. *Yale University Press*, New Haven, CT.

STEADMAN, D.W. 1997. The historic biogeography and community ecology of Polynesian pigeons and doves. *Journal of Biogeography*, 24: 157-173.

STEADMAN, D.W. 1998. Status of landbirds on selected islands in the Ha`apai Group, Kingdom of Tonga. *Pacific Science*, 52: 14-34.

STEADMAN, D.W. & P.V. KIRCH. 1998. Biogeography and prehistoric exploitation of birds in the Mussau Islands, Papua New Guinea. *Emu*, 98: 13-22.

STEADMAN, D.W. 1998. [Review of] *The Origin and Evolution of Birds* by Alan Feduccia. *The Wilson Bulletin*, 110: 140-141.

STEADMAN, D.W. 1998. From glaciers to global warming: the long-term ecology of birds in New York State. pp. 56-71 in E. Levine, ed. *Birds of New York State*. *Cornell University Press*, Ithaca, NY.

STEADMAN, D.W. & L.J. JUSTICE. 1998. Prehistoric exploitation of birds on Mangareva, Gambier Islands, French Polynesia. *Man and Culture in Oceania*, 14: 81-98.

STEADMAN, D.W. & H. FREIFELD. 1998. Distribution and relative abundance of landbirds in the Vava`u Group, Kingdom of Tonga. *Condor*, 100: 609-628.

STEADMAN, D.W. 1999. [Review of] *A Guide to the Birds of the Galapagos Islands*. *Auk*, 116: 293-295.

STEADMAN, J.P. WHITE & J. ALLEN. 1999. Prehistoric birds from New Ireland, Papua New Guinea: extinctions on a large Melanesian island. *Proceedings of the National Academy of Sciences USA*, 96: 2563-2568.

STEADMAN, D.W. 1999. Extinct animals in the West Indies. *Astrolabe* (Turks & Caicos National Museum), 3: 47.

STEADMAN, D.W. 1999. The prehistory of vertebrates, especially birds, on Tinian, Aguiguan, and Rota, Northern Mariana Islands. *Micronesica*, 31: 59-85.

STEADMAN, D.W. & V.E. BURKE. 1999. The first highly stratified prehistoric vertebrate sequence from the Galapagos Islands, Ecuador. *Pacific Science*, 53: 129-143.

STEADMAN, D.W. 1999. [Review of] Consilience by Edward O. Wilson. *The Professional Geographer*, 51: 325-326.

STEADMAN, D.W. 1999. The Lapita extinction of Pacific island birds: catastrophic versus attritional. pp. 375-386 in J.-C. Gallipaud & I. Lilley, eds. *The Pacific from 5000 to 2000 BP: Colonization and Transformations. ORSTOM editions*, Paris, France.

STEADMAN, D.W. 1999. The biogeography and extinction of megapodes in Oceania. *Zoologische Verhandelingen* (Zoological Museum, Leiden), 327 :7-21.

STEADMAN, D.W. & H.B. FREIFELD. 1999. The food habits of Polynesian pigeons and doves: a systematic and biogeographic review. *Ecotropica*, 5: 13-33.

Lubbock, Texas

CHATTERJEE S. (1998) - The avian status of *Protoavis*. *Archaeopteryx*, 16: 99-122.

Pittsburgh, Pennsylvania

LIVEZEY B. C. (1998) - A phylogenetic analysis of the Gruiformes (Aves) based on morphological characters, with an emphasis on the rails (Rallidae). *Phil. Trans. R. Soc. London, B*, 353: 2077-2151.

San Francisco, California

Sylvia HOPE is continuing work on neornithine birds in the Mesozoic, at present preparing several short publications in collaboration with others concerning birds closely related to modern galliforms, anseriforms and charadriiform-like birds from the North America, and cormorants in the Northern Hemisphere. In addition she is working with Luis BAPTISTA and others on origin of the Galapagos finches, using a variety of morphological and behavioral characters.

The Department of Ornithology and Mammalogy at the California Academy of Sciences is actively seeking specimen exchange (skins or skeletons) with institutions in other parts of the world. We have most of the common species from Western North America. Please contact Sylvia or the collections manager, Dr. Douglas LONG, if you are interested (shope@calacademy.org; dlong@calacademy.org).

HOPE, S. 1998. The Mesozoic record of the Neornithes: *Journal of Vertebrate Paleontology*, v. 18 (Suppl. to 3), p. 51A.

Seattle, Washington

Jim GOEDERT continues to collect, prepare, and study the plotopterids from Oligocene rocks on the Olympic Peninsula. Another specimen that appears to be referable to *Tonsala hildegardae* has been collected by John CORNISH (new member). John also found a concretion with a pair of giant plotopterid femora - the largest yet found in North America (but smaller than the largest from Japan). Jim Goedert and John Cornish plan to collaborate on this material.

Jim Goedert is now Affiliate Curator of Fossil Marine Vertebrates for the Burke Museum of Natural History and Culture, University of Washington. The Burke now has a good collection of bird fossils from the Late Eocene/earliest Oligocene part of the Makah Formation. All are unprepared, and most are in hard sandstone concretions. Jim wants to hear from researchers interested in studying specimens from this collection. Specimens can be loaned to anyone who has the resources/facilities for the preparation of them.

Jim is also working with Gerardo GONZALEZ-BARBA and Tobia SCHWINNICKE (Univ. Autonoma de Baja California Sur, La Paz, Mexico) on a possible pelagornithid bone fragment from the Tepetate Formation in Mexico. Other collecting is planned to see if more material can be collected.

St. Louis

RASMUSSEN D. T. (1997) - Ch. 10, Birds. In KAY R. F., MADDEN R. H., CIFELLI R. L. and FLYNN J. J. (Eds.) *Vertebrate Paleontology in the Neotropics. The Miocene Fauna of La Venta, Columbia*. Smithsonian Institution Press, Washington and London, p. 171-183, fig. 10.1-10.6

Washington, D.C.

Storrs OLSON and Helen JAMES returned in August to their joint excavation with David BURNEY of Fordham University in a Holocene lake deposit on Kauai. All the hard work of digging a new pit in a different part of the sinkhole was not rewarded with any significant new bird bones. Better resolution of stratigraphic questions and the collection of important new specimens of seeds had to suffice as recompense for all the effort. Because working beneath the watertable is so labor intensive, work at this site will probably not be continued anywhere in the near future, so Storrs and Helen will have to settle in and begin describing all the new species of birds that have been found here in the past 3 years.

Storrs Olson reports that the Proceedings of the 4th SAPE meeting in Washington in June 1996 is at the printers and the Smithsonian Press indicated that it is still possible that the volume will be published in 1999. If not, it will appear early in 2000. Our colleagues in Beijing should not have any trouble bettering this unenviable record of delay.

Speaking of delays, Storrs Olson and Pamela RASMUSSEN report that after more than 25 years in preparation, the manuscript on the Miocene and Pliocene avifauna of the Lee Creek phosphate mine in North Carolina has been completed and is also at Smithsonian Press as part of a series (vol. 3) on the geology and paleontology of the mine. The manuscript is 300 pages long with 33 plates with hundreds of figures of bones. This marine avifauna includes at least 112 species of birds, although only 3 are named as new.

OLSON S. L. 1999. Early Eocene birds from eastern North America: a faunule from the Nanjemoy Formation of Virginia. Pages 123-132 in Robert E. Weems and Gary J. Grimsley, editors. *Early Eocene Vertebrates and Plants from the Fisher/Sullivan Site (Nanjemoy Formation) Stafford County, Virginia*.

Virginia Division of Mineral Resources Publication 152. Postmarked 28 September.

OLSON S. L. 1999. A new species of pelican (Aves: Pelecanidae) from the Lower Pliocene of North Carolina and Florida. *Proceedings of the Biological Society of Washington*, 112: 503-509.

Museum of Western Colorado, Grand Junction, Colorado

BRITT B. B., MAKOVICKY P. J., GAUTHIER J. and BONDES N. (1998) - Postcranial pneumatization in *Archaeopteryx*. *Nature*, 395: 374-376.

Wilmington, North Carolina

Dr. Steve EMSLIE has completed his first year at the University of North Carolina, Wilmington, where he is teaching ornithology and ecology. New research initiated this past year has focused on seabirds breeding along the coast of North Carolina. Three graduate students have become involved in studies on the foraging ecology and diet of Royal and Sandwich Terns at five breeding colonies. Radio transmitters were applied to the former species in summer 1999 to determine timing and duration of foraging bouts during the chick-rearing period. This research also includes satellite imagery analysis of ocean productivity in relation to seabird foraging patterns and colony locations. In January 2000, Steve and one graduate student will travel to Rothera Station, the British base in the Antarctic Peninsula, to study abandoned penguin colonies and climate change. This work will follow similar studies at Palmer Station in 1996 and includes excavation of colony sediments to recover organic remains. This research, funded by NASA, will be completed in collaboration with British and other U. S. scientists.

Work also has been completed on the fossil avifauna from Porcupine Cave, Colorado. On-going excavations at this site by the Denver Museum of Natural History have produced a diverse assemblage of vertebrates dating from the early to middle Pleistocene. The avifauna is represented by 36 taxa and includes the first fossil record of Far Eastern Curlew (*Numenius* cf. *N. madagascariensis*) from North America. It also includes the earliest records of Bald Eagle (*Haliaeetus leucocephalus*), Sage Grouse (*Centrocercus urophasianus*), and Pinyon Jay (*Gymnorhinus cyanocephalus*) from North America. Steve's paper has been submitted as a chapter in a book on the cave to be published by the University of California Press next year.

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PUBLICATION AVAILABLE

AVIAN EGG-SHELLS: AN ATLAS OF SCANNING ELECTRON MICROGRAPHS by Dr.Konstantin Mikhailov. Bull. Brit. Orn. Club Occas. Publ. 3 (1997).

The author is an ornithologist of the Paleontological Institute of the Russian Academy of Sciences in Moscow, and has been investigating avian taxonomy and phylogeny based on the micro-structure of eggshells. Here presented are the results of research on 220 species from 165 genera of non-passeriform birds and 8 genera of fossil birds, forming a representative sample of all modern and five extinct orders. After a description of basic eggshell structure, both micro- and ultra-structure, there follows a photographic atlas of scanning electron micrographs of eggshells, accompanied by explanations of their taxonomic significance. This is the first compilation of its kind and it sheds new light on the relationships between different non-passeriform groups which do not always follow current phylogenies.

Price (including post & packing): UK/Europe - £39; rest of world £40 (US \$ 77). Available from: S.J. Farnsworth, BOC Publications Officer, Hammerkop, Frogmill, Hurley, Maidenhead, Berkshire SL6 5NL, U.K.

Suggestion for the next SAPE meeting

Sylvia HOPE suggested that the SAPE members might want to get together to discuss exchanges of specimens at the upcoming meeting. Another possible collaborative effort would be help in finding some of the classics from the last century, or translations of certain important works in avian anatomy and paleontology.

This information letter has been compiled by Cécile Mourer-Chauviré, Secretary of the SAPE. This is her last Information Letter since a new secretary will be elected during the next SAPE meeting, in Beijing. It is supposed that the Information Letter will undergo considerable modifications, so this is the last old-fashioned one. A contribution of 10 US dollars, or the equivalent in other currencies, for assisting in defraying xerocopies and mailing expenses, will be highly appreciated (banknotes in major currencies preferred).
