

动 态

中国科学院古脊椎动物与古人类研究所动态

从今年初以来,古脊椎动物与古人类研究所的各项科研工作呈现出崭新的形势。与大规模的野外调查、发掘的同时,对近十年来积累的大量脊椎动物化石的描述及研究成果的出版,正在加快进行。

今年 3 月,古脊椎动物与古人类学报第 11 卷第 1 期和读者见面了(该刊第 10 卷第 2 期出版于 1966 年 5 月)。面向广大工农兵的科普刊物《化石》(由本所负责编辑)也于今年创刊,它将以通俗的文字和插图向读者普及古生物学、古人类学知识,通过介绍生物史与人类史,宣传辩证唯物主义与历史唯物主义。上述两刊今年均出版两期,学报明年起定为四期。

本所专刊自去年重新陆续出版。已出版的三册(甲种专刊第 8—10 号)是:《合川马门溪龙》(杨钟健、赵喜进);《中国三迭纪水生爬行动物》(杨钟健、董枝明);新疆古生物考察(1963—1966)报告之一,《吐鲁番二、三迭纪脊椎动物化石》(杨钟健、刘宪亭、孙艾玲等)。该考察报告之有关其他中生代爬行动物和第三纪哺乳动物部分也将陆续发表。《中国的象化石》预计今年内可出版。此外,尚有近十册专刊正在付印或准备交付出版。

近年来发现了大量重要的脊椎动物化石。其中较重要的有:泥盆纪的无颌类和盾皮类鱼化石,二迭纪、三迭纪的早期刺鳍目和爬行动物,侏罗纪、白垩纪的早期真骨鱼类、翼龙和恐龙等,以及早第三纪和更新世的哺乳动物。

无颌类、节甲类和胴甲类鱼化石,在我国保存材料异常丰富,而且分布广泛。云南下泥盆统继续发现许多新类型的无颌类及胴甲类鱼化石,正在进行系统研究(刘玉海、张国瑞等)。中、下泥盆统所发现的瓣鳃类、节甲类鱼化石表明,这类化石除了广泛分布于华南数省,在我国西北部(甘肃)也有发现。本所低等脊椎动物研究室对上述丰富

资料作了研究。他们并对准噶尔盆地北部晚古生代和中生代的古鳕类和全骨类鱼化石、华南重要的早期真骨鱼化石群进行了研究,并记述了四川侏罗纪褶鳞目一重要新属。此外,近年来已采集了许多有价值的第三纪真骨鱼和鲨鱼化石。

在爬行动物方面的新发现也是丰富多采的。有关新疆的资料已经或即将出版。其中有:二迭纪二齿兽;三迭纪二齿兽(水龙兽的头骨和肯氏兽骨架);三迭纪假鳄类(吐鲁番鳄,武氏鳄,以及一具加斯马吐龙的完整骨架)和白垩纪的海龟、翼龙与恐龙等。

近年来在著名的禄丰化石点又采集到不少化石。其中包括似哺乳爬行动物和真正的哺乳动物的小型头骨。在湘西桑植发现了一个新的爬行动物群,时代大概为中三迭世,这是一项重要的新发现。化石保存得十分完好,其中绝大部分大概属于假鳄类。而河南济源出土的弯齿兽是一类重要的三迭纪的二齿兽类,过去主要发现于非洲及南美。

显然,我国水生爬行动物的分布异常广泛。远自西部的喜马拉雅山区,东至东南沿海各省,都找到了这一类化石。安徽下三迭统地层中发现的巢湖龙,是一个和斯匹次堡的 *Grippia* 属相似的小型鱼龙,很象是代表这一类群中已知最原始的类型。

近年来紧密结合地层开展了第三纪哺乳动物化石的研究。这样,继蓝田地区(主要是晚新生代和早第三纪)的工作之后,又在一向被认为完全缺乏骨化石的华南“红层”中采集了相当多的化石,在许多地区都发现了哺乳动物化石。“红层”包括了相当厚(3000 米或更多)的白垩纪和第三纪地层,并且在华南分布很广。经过三年的认真探寻,除了新疆、广东几年前已发现的以外,在江西、湖南和安徽三省也找到了早始新世和古新世的哺乳动物。

新疆地区的发现包括早始新世(有下齿兽、犀獾和冠齿兽)和晚古新世(格沙托动物群)的化石,并已由翟人杰、童永生分别作了研究。周明镇等记述了广东罗佛寨中古新世的动物群,报告即将发表。材料最多的是钝脚目的一个新属——阶齿兽属(周明镇等,1973)。在安徽潜山和宣城两地发现了三个不同时代的动物群带,依次分别代表中古新世(罗佛寨阶)、晚古新世(格沙托阶)和一个早始新世的层位。这是一项重要而极有意义的发现。根据初步观察,安徽动物群的一个显著特征(在某种程度上也象其他地区的一样)是包括相当多的属和种的亚洲东部特有的类型,如猛兽、假古蝟、倍齿兽、宽齿兽、全稜兽,而阶齿兽和柱齿兽则可能属于这一范畴。能确实鉴定为灵长类的化石至今仍未发现,但在中期、晚期的古新世地层中发现有肯定的啮齿目和兔形目(不是宽齿兽类)的较原始的种类。此外,还找到了中兽类、下齿兽类、裂齿类和奇蹄类(?)化石,有的种类甚至不能确切鉴定其属于哪一目。这些困难一部分是由于所采集的标本较少和不够完整,一部分是由于缺乏可资对比的标本、文献以及研究古老哺乳动物的经验。然而不管怎样,这些早第三纪哺乳动物群

的发现是很有意义的,并且将有助于阐明第三纪初哺乳动物某些目的发生、系统进化和传播的问题。关于这些动物群的初步综述,即将另文发表。

除了早第三纪哺乳动物方面的工作外,在云南元谋盆地、甘肃东部及广西、湖北,正在对中更新世哺乳动物(还包括巨猿及其他类人猿)进行着更为重要的发掘和研究工作。

自去年十月以来,每天都有许多观众来到新建成的周口店北京猿人展览馆参观。这里的陈列内容已较前大为扩充。猿人洞遗址以及展出的大量实物、图片,向观众生动地揭示了人类出现以前动物进化的历史以及“劳动创造了人本身”这一基本原理,已成了向工农兵群众宣传辩证唯物主义和历史唯物主义的极好课堂。

我们十分高兴地看到,古脊椎动物与古人类学知识,如“恐龙”和“从猿到人”在我国已愈益为更多的人们所了解。我们相信,在辩证唯物主义和历史唯物主义的正确指导下,在广大工农兵的热情支持下,这一学科必将显得更加生气勃勃,为繁荣祖国的科学文化创造出更好的成绩!

(周明镇 张 锋)

NEWS FROM IVPP

Since the beginning of this year, parallel with extensive field explorations, description and publication of the collections of various vertebrate groups accumulated in the past ten years are well under way and being accelerated.

The first number of *Vertebrata Palasiatica* (vol. 11, no. 1) came out early this year, the one preceding to this being no. 2 of the 10th volume published in May, 1966. Only two numbers will be published for this volume, but from 1974 onward at least four numbers will be published for each volume.

The Memoirs of the Institute, which are for longer papers or for a series of short papers edited under a common title, have resumed publication since 1972. Three numbers have been issued and about a dozen are either in press or in the final stage of preparation. No. 8 is the one on "*Mamenchisaurus*" by Young and Chao; and No. 9 on Triassic marine reptiles by Young and Dong. No. 10, entitled "Permian and Triassic Vertebrates of Turfan" by Liu, Young, Sun and Ma, is the first one of the series of reports of the Expeditions (1963—1966) to Sinkiang. The others which treat of the other Mesozoic reptiles and Tertiary mammals will be followed soon. Though nearly all the papers published so far are in Chinese only, longer English summaries or abstracts will be included for most of the future publications.

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Quite a number of interesting finds of the various vertebrate groups have been made in the recent years. More important ones include those from Devonian (Agnathans, Placoderms etc.), Permian and Triassic (early actinopterygians and reptiles), Jurassic and Cretaceous (early teleosts, pterosaurs, dinosaurs etc.), and of the earliest Tertiary and Pleistocene mammals.

Agnathans, arthrodires and antiarchians are found to be more abundantly and widely distributed in China. Agnathan remains from the lower Devonian of Yunnan continue to reveal a number of new forms, which together with those of the antiarchians, are being systematically studied by Liu and Chang. The discoveries of the petalichthyids and arthrodires from the lower and middle Devonians show fossils of these groups are rather extensively distributed in several provinces in S. China, and occur also in

northwestern part of the country (Kansu).

The rich materials are being investigated by "Lius", "Changs", all working on fossil fishes in China (plus some more mammalogists Lius Wangs and Changs). "It is quite a confusion in nomenclature!" The paleoniscoides and holo-steans from the both the late Paleozoic and Mesozoic of the northern Dzungaria Basin are being studied by Liu, Su, and Wang; and the interesting early teleosts fauna of S. China by Chang (Meeman) and Chow (Mrs., and not the two mammalogist Chows). An interesting new genus of the ptycholepid from the Jurassic of Szechuan is being described by Su. In addition, good materials of the teleosts and sharks have been collected from the Tertiary in the recent years.

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For reptiles the new findings are also plenty and varied. Parts of the materials from Sinkiang have been or will soon be published. These include Permian dicynodonts; Triassic dicynodonts (skulls of *Lystrosaurus* and skeletons of kannemeyrids), Triassic pseudosuchians (*Turfanosuchus*, *Vjushkovia* and a complete skeleton of *Chasmatosaurus*) and the Cretaceous chelonians, pterosaurs and dinosaurs etc.

From the well known localities in Lufeng, several collections have been made recently. These include, among others, small skulls of mammal-like reptiles and real mammals. A novelty of importance is the locating in Sanchi, in W. Hunan of a new reptilian fauna, probably of middle Triassic. The fossils are very well preserved, and most of them belong probably to the pseudosuchians. Another interesting thing is the presence of a traversodont at Chiyan, Honan.

Evidently marine reptiles become of more common occurrence in China. Their fossils were found from far west in the Himalayas, as well as in the eastern coastal provinces. *Chaohusaurus*, a small form related to *Grippia* of Spitsbergen from the lower Triassic of Anhwei, appears to be an earliest known form of this group.

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In the recent years works on fossil mammals are carried on more closely in connection with stratigraphical investigations. As a result of

this, and fortunate enough, after the fruitful works done in the Lantian district mainly on late Cenozoic, early Tertiary mammalian fossils are found sporadically in a number of districts in the "red beds" of S. China, which cover strata of both Cretaceous and Tertiary of considerable thickness (up to 3,000 m. or more) and areal distribution and are long thought to be entirely barren of fossil bones. After three years of careful searching early Eocene and Paleocene mammals have been recovered in over half a dozen districts in the provinces of Kiangsi, Hunan and Anhwei, in addition to those of Sinkiang and Kwantung already known some years ago.

The materials from Sinkiang include those of early Eocene (with *Hyopsodus*, *Heptodon* and *Coryphodon*) and late Paleocene (Gashatan fauna) and are being investigated by Zhai and Tong respectively. The middle Paleocene Lofochai (village Lofu) fauna have been described by Chow and the others and the manuscripts will be in press soon. It is characterized by a new pantodont genus *Bemalambda* (Chow et al., 1973). The most interesting and important are the two districts of Chishan and Shiuanchen in Anhwei where three successive faunal zones representing middle (Lofochaian) and late (Gashatan) Paleocene and early Eocene can be distinguished. At the first glance a striking feature of the faunas of Anhwei, to some extent of those of the others as well, is the presence of a great varieties of the endemic forms such as the anagalids, the pseudictopsids, the didymocoids, the eurymulids and pantolambdids, and the bemalambdids and paleostyloids may also be considered as such. So far no fossils of primates can yet be identified with certainty, but more primitive forms of the rodents and lagomorphs (not *Eurymylus*) are present in the middle and late Paleocene zones. Besides, there are mesonychids, hyopsodontids, tillodonts, perisodactyle (?) and some others even the ordinal assignments of which are highly problematic or not yet possible. The difficulties arise partly due

to the imperfectness of the specimens and partly, possibly more so, due to the lacking of materials for comparison, of literature and of our experience in dealing with the archaic mammals. Nevertheless, the discovery of these earlier Tertiary mammalian faunas is interesting and may throw some lights on origin, phylogeny and dispersal of some mammalian orders during the beginning of the Tertiary. A paper gives a preliminary general survey of these faunas will be published elsewhere soon after.

For works on fossil mammals other than those of the early Tertiary some more important works on going include the excavation and studies of early middle Pleistocene mammals in the Yuanmou basins, Yunnan, in the eastern parts of Kansu and in Kwangsi and Hupei (both with *Gigantopithecus* and probably other anthropoids).

At Choukoutien a new building for the Peking Man Museum with an exhibition space of about 1,000 square meters was completed and open to the public in October 1972. This is to replace the much smaller one built in 1953. The contents of exhibitions have been much enlarged to include those demonstrating Evolution of Life in general, but still with emphasis on Human and Vertebrate Evolution, with Peking Man as the principal theme.

Outside the Institute, a new paleontological department was established in the Shanghai Museum of Natural History last year. The Peking Museum of Natural History is also renovating its Paleontological Hall. Measures are also being taken to include Vertebrate paleontology and Paleoanthropology as part of their plans for future development in a number of other municipal or provincial museums. Those have sections with new exhibitions already open to public including the ones in Tientsin, Harbin, Hangchow, Sian and some others. We are glad to see that VP begins to attract more public attention and the "Dinosaurs" and "Ape-Man" become more popularly known in China.

(M. Chow and Chang Feng)