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Pliocene and Pleistocene bats of Poland

Bronisław W. Wołoszyn
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The fossil remains of Pliocene and Pleistocene bats from central and southern Poland have been examined, belonging to three families: Rhinolophidae, Miniopteridae and Vespertilionidae. In the material examined, 15 species of bats have been found, six of which being new: *Rhinolophus kowalskii* Topal, *R. wenzensis* sp. n., *R.* cf. *macrorhinus* Topal, *R. hanaki* sp. n., *R.* cf. *Variabilis* Topal, *R. neglectus* Heller, *Rhinolophus* sp. (*mehelyi?*) (Rhinolophjdae); *Miniopterus approximatus* sp. n. (Miniopteridae); *Eptesicus kowalskii* sp. n., *E. mossoczyi* sp. n., *E.* cf. *serotinus* (Schreber), *E. nilssoni* (Keyserling et Blasius), *Barbastella* cf. *schadleri* Wettstein-Westersheim, *Plecotus rabederi* sp. n., *P.* cf. *abeli* Wettstein-Westersheim (Vespertilionidae). The material comes from ten localities. The Pliocene faunas showed a high share of thermophilous species of the families Rhinolophidae and Miniopteridae. The deterioration of the climate towards the close of the Pliocene brought about a decfine in thermophilous forms. The faunas of the middle Pleistocene show a conlplete absence of thermophilous species, while the share of forest and boreal species increases. It has been shown that from the early Pliocene onwards, changes which appear to be evolutionary trends have continued to take place in skull structure. Some of these trends were analysed, and they were found to consist mainly in the reduction of the splanchnocranium: shortening of the palate and of the premolar toothrows (both in the maxilla and the mandible). Postdental part of the mandible becomes shorter.

Key words: Chiroptera, Mammalia, taxonomy, Pliocene, Pleistocene, evolutionary trends, southern Poland.

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