

RANA TEMPORARIA FROM A LATE PLEISTOCENE PERIGLACIAL PIT IN BRITAIN

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Records of amphibians and reptiles from British cold stage deposits are so rare (Holman, 1990;1993) that each occurrence is singular. This note reports fossil remains of the common frog, *Rana temporaria*, from a pit at Northfleet, Kent, that yielded fossils representing animals that lived in a Late Pleistocene periglacial environment.

THE SITE

Baker's Hole pit, Northfleet, Kent, contains periglacial deposits representing the Wolstonian Cold Stage (early part of the Late Pleistocene) that have yielded the remains of large mammals and human artifacts (Smith, 1911; King and Oakley, 1936; Stuart, 1982; Jones and Keen, 1993). The mammals are: mammoth (*Mammuthus primigenius*), horse (*Equus ferus*), and woolly rhino (*Coelodonta antiquitatis*). These animals are believed to have lived near the ice margin in a periglacial environment.

Recent systematic collecting at Baker's Hole pit by Simon Parfitt of the University College London Field Archaeology Unit yielded the frog remains. Abbreviations appended to the fossil bones below are: NHM – Natural History Museum, London; SP – Simon Parfitt; BH – Baker's Hole pit; S228 (etc.) – systematic sample units.

THE FOSSILS

Rana temporaria Linnaeus (Common frog)

Material: Left ilium of a subadult NHM-BH-SP-S228, and left ilium of a juvenile NHM-BH-SP-S138. The ilia were identified as *Rana temporaria* using the criteria of Holman (1985).

Rana sp. indet. (Frog)

These fossils probably also represent *Rana temporaria*. But since none of the elements are particularly diagnostic, they will be merely designated as *Rana* sp. indet.

Material: Right angulosplenic of a subadult NHM-BH-SP-S141; right distal humerus of a juvenile NHM-BH-SP-S138; limb fragment of a subadult NHM-BH-SP-S141; and posterior vertebra of an adult NHM-BH-SP-S141.

COMMENTS

At least two individuals of *Rana temporaria*, a subadult and a juvenile; and at least three individuals of *Rana* sp. indet., an adult, a subadult and a juvenile, were represented at Baker's Hole pit.

Rana temporaria occurs today north of the Arctic Circle, reaching the northern tip of Norway, Sweden, Finland, and occurring throughout the Kola Peninsula (Frazer,

1983, fig. 9). Thus, it may not be surprising that this species existed near the ice margin in glaciated Britain. Nevertheless, its presence in such a cold environment where it lived with the woolly rhino and mammoth is noteworthy. *Rana temporaria* probably existed in parts of southern England during all glacial time, and must have been one of the first, if not the first, amphibian to have reinvaded recently deglaciated areas.

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