

to as *Palaeocryptonyx donnezani* Depéret 1892. Seven species and subspecies of three genera of fossil birds from Poland, Romania, Ukraine, and Israel are synonymous with this species.

The fossil quail *Palaeocryptonyx donnezani* ranges from the Middle Pliocene (MN 15) to the end of the Early Pleistocene (Q2). Its geographic distribution ranged from the Iberian Peninsula to Ukraine and the Near East, and perhaps more eastwards. Its eastern extent is uncertain because suitable localities are lacking, except

for an isolated find from the Beregovaya locality near Lake Baikal. The quail *Palaeocryptonyx donnezani* was only slightly larger than the recent European quail. Both species lived together, as documented, e.g., from the Early Pleistocene locality of Stránská skála near Brno. *Palaeocryptonyx donnezani* is a characteristic element of Plio-Pleistocene bird faunas of Europe. This is of interest not only to palaeornithologists, but also to other palaeontologists dealing with European natural history of that period.

Reconstruction of the vegetational evolution of the Boží Dar peat bog during Late Glacial and Holocene

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The Krušné hory Mts. (northern Bohemia) are an area rich in peat-bog complexes in the Czech Republic. The Boží Dar peat bogs (51°60' N, 12°95' E) are the richest among them.

Pollen analysis of sediments was carried out from localities of Boží Dar - V rezervaci ("In the reserve", Břízová 1993 MS) and Boží Dar (Vile et al. 1995). The analysed sections were c. 2.90 m and c. 1 m. thick, respectively.

Palynological and stratigraphical analysis of the Boží Dar - V rezervaci Section clearly shows the peat bog to have started forming in the Late Glacial period, according to the classification of Firbas (1949, 1952) in the (I) Oldest Dryas - Bölling - Older Dryas period (the inorganic sandy sediments have not been palynologically studied). The evolution continued in the (II) Alleröd-mudda, and was radiocarbon-dated to $11\,240 \pm 290$ B.P. (Hv - 19008, ^{14}C - Laboratorium, Niedersächsisches Landesamt für Bodenforschung, Hannover) at a depth of 2.90 - 3.00 m. In the (III) Younger Dryas period, the mudda sediments are transitional to fen and peat bog deposits which comprise the remaining part of the section.

Fen deposition marks the infilling of the peat bog from the (IV) Preboreal period continuously until the (VII) Younger Atlantic period, being followed by peaty sedimentation until the Older Subatlantic period (IX). The fen and peat-bog types vary according to vegetational character at particular evolutionary phases. Sphagnum-dominated peat exists from 0.00 - 1.43 m, where it replaced an *Eriophorum-Carex*-dominated fen at 1.43 - 2.80 m depth, which is then transitional to mudda at 2.80 - 2.90 m.

The vegetational sequence obtained from pollen diagrams for the peat bogs and the Krušné hory Mts. is the following: pine (*Pinus*) - alternating birch (*Betula*) - hazel (*Corylus*) - mixed woodland (QM) - spruce (*Picea*) - beech (*Fagus*) - fir (*Abies*). This was confirmed by several authors (Rudolph 1930, Jankovská 1992, Břízová 1993 MS).

Reconstruction of the vegetation evolution from the Subboreal (VIII) period through the older Subatlantic period (IX) to the younger Subatlantic period (X), was based on pollen analysis of the Boží Dar section (Vile et

al. 1995), and was dated by the ^{210}Pb method (by M. Novák, Czech Geological Survey, Prague).

Pollen analysis shows the obviously negative impact of humans on the Krušné hory ecosystems beginning roughly in the early 19th century. The pollen spectrum records an abrupt decrease of pollen grains of some trees such as spruce (*Picea*), beech (*Fagus*), fir (*Abies*), birch (*Betula*), and alder (*Alnus*), and an increase is observed in the number of grains of pine (*Pinus*), which is typical for the younger Subatlantic period.

The peat bog at Boží Dar is an example of an upland bog, and both analysed sections represent a continuous vegetation evolution from the Late Glacial period to the present day.

References

- BŘÍZOVÁ E. 1993. Rekonstrukce vývoje vegetace rašelin-
išťe Boží Dar na z kladě pylové analýzy. - MS, in
Archiv ČGÚ (Czech Geological Survey) Praha. 36 p.
- FIRBAS F. 1949, 1952. *Spät- und nacheiszeitliche
Waldgeschichte Mitteleuropas nördlich der Alpen. -
I. Allgemeine Waldgeschichte. - II. Waldgeschichte der
einzelnen Landschaften.* - Jena.
- JANKOVSKÁ V. 1992. Vývoj krušnohorských lesů od
konce doby ledové. - *Lesnická práce*, 3/71, 73-75.
- RUDOLPH K. 1930. Grundzüge der nacheiszeitlichen
Waldgeschichte Mitteleuropas. - *Beih. Bot. Cbl.*,
Dresden, 47, 111-176.
- VILE M.A., NOVÁK M.J.V., BŘÍZOVÁ E., WIEDER
R.K. and SCHELL W.R. 1995. Historical rates of
atmospheric Pb deposition using ^{210}Pb dated peat
cores: corroboration, computation, and interpretation.
- *Water, Air and Soil Pollution, Netherlands*, 79 (1-4),
89-106.