Rotem Mammals and Yeroham Crassostreids: 
Stratigraphy of the Hazeva Formation (Israel) and the 
Paleogeography of Miocene Africa

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with 1 plate, 5 figures and 1 table

Abstract. The continental Hazeva Formation in the Negev of Israel consists of sediments originating in transJordan and corresponds roughly to the Miocene Age. The radiometric base is the Ashosh plug at 20.7 Ma; the terminus is the Pliocene opening of the Dead Sea Rift, dated 2.7 Ma at En Yahav. The Hazeva Formation is contemporaneous with the *Globorotalia fohsi* hiatus dated ~15–11 Ma, a volcanic intercalation at 11 Ma, the Proboscidian and *Hipparion* closures of the Tethys and, speculatively, the rotation of Africa ~12–10 Ma.

The sands and fluviatile conglomerates of Hazeva Formation in Yeroham and Rotem Basins are dated 17.5–17 Ma by a vertebrate (Burdigalian) fauna. In Yeroham Basin ostracods and an oyster bank that overlie the vertebrates belong to the brackish facies of a marine gulf of the *Fohsi*-zoned Tethys Sea. Balanids, echinoids, bryozoans and beach rock indicate marine oscillations, but the absence of *Borelis melo* suggests that the oyster bank antecedes the Ziqlag gulf of the Tortonian Mediterranean Sea.

Mammals appear in the Negev during a humid, subtropical interval in the late Early Miocene when arboreal and grassy vegetation predominate and desert pollen drops below 50%. Earliest carnivores coexist with coursing, brachyodont artiodactyls. Affinities of the Negev mammals with fauna from Al-Sarrar, Rusinga and Gebel Zelten support the Early Miocene paleogeographical reconstruction of COGLEY-TERMIER: land connects the Negev to East Africa but an epicontinental gulf separates the Negev from the Sirtean Plain of North Africa.

Résumé. La formation continentale de Hazeva dans le Néguev (Israël) consiste essentiellement de sédiments fluviatils provenant des montagnes transjordanienes. Sa durée correspond pratiquement à celle du Miocène. Sa base est placée radiométriquement à Ashosh à 20.7 Ma. Elle se termine par l’ouverture Pliocène du Rift, datée à En Yahav de 2.7 Ma. La formation de Hazeva est contemporaine de l’hiatus de *Globorotalia fohsi* daté 15–11 Ma, d’une intercalation volcanique de 11 Ma et des fermetures proboscidiennes et hipparionines de la Téthys ainsi que, spéculativement, de la rotation de l’Afrique ~12–10 Ma.

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