

Eritrean Decapods in the Levant - Biogeography in motion

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The Levant basin, a warm and salty cul-de-sac, is remarkably poor, both in species and individuals, compared with the rest of the Mediterranean. But, since the opening of the Suez Canal over 120 years ago, more than 200 Eritrean species colonized the Levant (Por, 1978) bringing about a profound change in the local fauna.

Ecological, geographical and historical factors have favoured the process, termed Lessepsian migration, that is, the colonization of the Mediterranean by Eritrean species migrating through the Suez Canal. Decapods are among the more prominent migrants, to date thirty one species of Eritrean decapods became established and founded thriving populations along the Mediterranean coast of Israel (Holthuis and Gottlieb, 1958; Lewinsohn and Holthuis, 1964; Galil, 1986).

Three migrants have been discovered but recently. A species of Metapenaeopsis - an Indo-Pacific genus not previously reported from the Mediterranean - is the sixth migrant penaeid. Metapenaeopsis aegyptia is known from the Red Sea, Djibouti and the Maldive Islands. It appears that within a remarkably short space of time it has succeeded in well establishing itself and forming flourishing populations. Panulirus ornatus (Fabricius), recently found in Haifa Bay, is widely distributed throughout the Indo-Pacific but has only been recorded twice from the Red Sea (Holthuis, 1968). P. ornatus is known to conduct seasonal migrations (Moore and Macfarlane, 1984) and is known to inhabit shallow coastal waters and lagoons (George, 1968). Its euryhalinity and proclivity for migration mark it as a candidate for lessepsian migration. Matuta banksi Leach is another widely distributed Indo-Pacific species, commonly found on shallow sandy bottoms, that occurs in the Red Sea and was found lately off our coast.

Biogeographically, the fauna of the Israeli coast is part of the Mediterranean, sharing origin as well as basic organization of its communities. However, it is set apart from other regions of the Mediterranean by some peculiar properties derived from its position, origin and distribution of species. The thirty-one Eritrean decapods that have entered the Mediterranean are now well established in various habitats in the southern Levant basin and comprise almost 20% of the known decapod fauna in our waters. This large contingent of successful colonizers demonstrates that some types of habitats for tropical species are available in the region. The Lessepsian migration is an ongoing process and we expect that a continuously growing proportion of the fauna will be composed of migrants and change the faunal picture of this corner of the Mediterranean - a fascinating, unique phenomenon of zoogeographical modification through human interference.

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