

## RANGE EXTENSION OF HALOPHILA STIPULACEA (HYDROCHARITACEAE) IN THE MEDITERRANEAN.

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*Halophila stipulacea* (Forsk.) Aschers. is a sea-grass which is widely distributed along the coasts of the western Indian Ocean and the Red Sea. In 1895 Fritsch (Verh. Zool. Bot. Ges. Wien 45, 1895, p. 104) recorded the species from the Island of Rhodos in the Aegean Sea. This was the first record of the species from the Mediterranean. There can be no doubt that it penetrated the Mediterranean via the Suez Canal, which was completed in 1869. Although there are no early records of its occurrence in the Suez Canal, it is significant that it was the only sea-grass found during the exploration of the canal by Munro Fox in the autumn of 1924; at that time it was abundant in several localities in the canal. Forti's record (Nuov. Giorn. Bot. Ital. 34, 1927, p. 714—716) of the species is the second for the Mediterranean; he reported it as being not uncommon in the Dodecanesos. I myself have seen specimens that were collected on Samos in 1924 and near Cape Matapan in 1955 (Den Hartog, Sea-grasses of the world, 1970, p. 260). In spite of the fact that the number of published records is still scanty, it is obvious that *H. stipulacea* is now well established in the Aegean waters. Further the species has expanded its Mediterranean area considerably, as is apparent from recent records from Malta (Lanfranco, The Maltese Naturalist 1, 1970, 16—17, stencilled) and Cyprus.

MALTA. Marsaxlokk harbour on the SE. coast of Malta, on rather muddy bottom, quite plentiful, 1-8-1970: G. Lanfranco 1615 (BM, L); ibidem, 5-8-1970: E. Lanfranco 1617, 1618, ♂ flowers (L).

GREECE. Rhodos. Lindos, Paulus Bay, at 2 m depth, 25-4-1970: Van Steenis (L).

CYPRUS. Famagusta, inner harbour near Nisitou Jieri, in shallow water, 23-3-1970: A. Hansen 716 (C, L).

According to Lanfranco (1970) *H. stipulacea* has been established in Malta for a considerable length of time, and this is apparent from its abundance at Marsaxlokk; there it is the dominant species in shallow, heavily polluted water; the main accompanying species is *Acanthophora delilei* Lamour. According to Lanfranco, l.c., *H. stipulacea* has also invaded a small salt-marsh, where it can be found growing among the roots of *Phragmites australis* (Cav.) Trin. ex Steud. From the Maltese material it is possible to give the following description of the up to now unknown male flower: Pedicel  $1\frac{1}{2}$  cm long; petals  $4\frac{1}{2}$  mm long,  $1\frac{1}{2}$  mm wide, elliptic; stamens 3 mm long.

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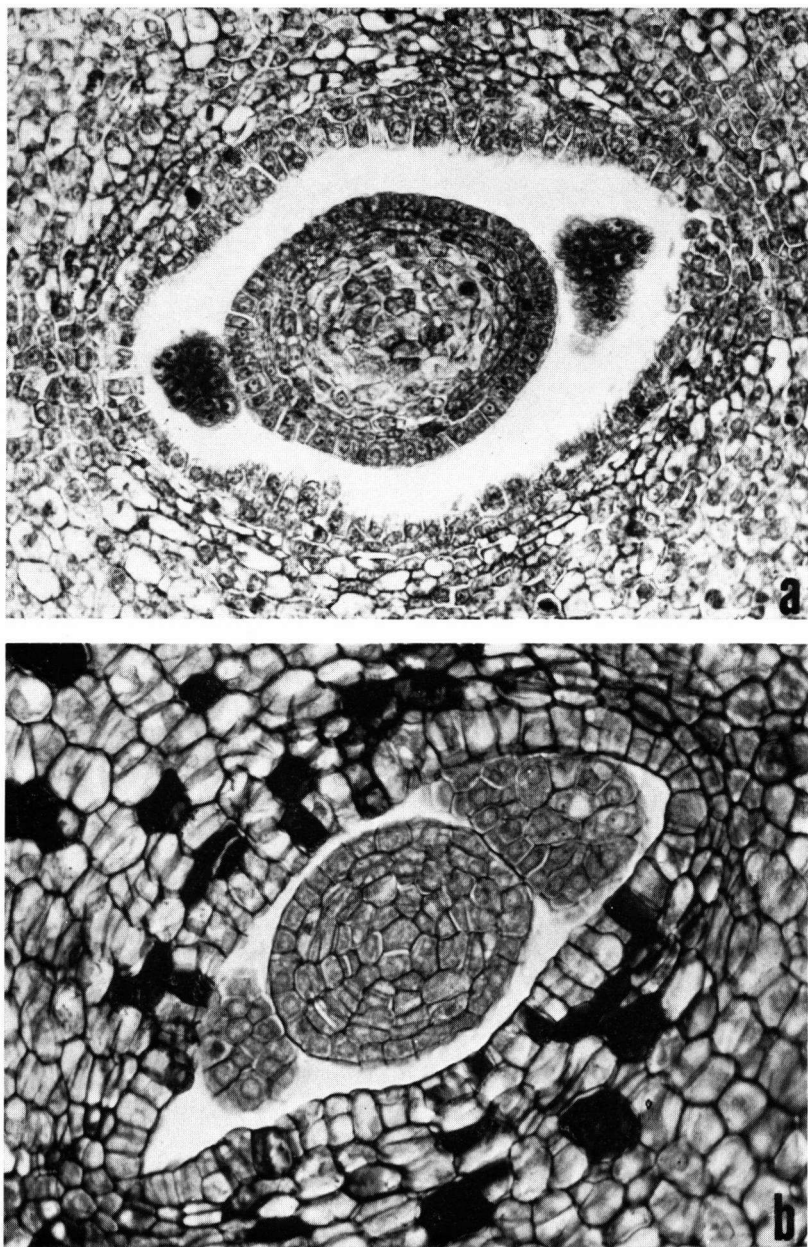


Plate I. a. *Pterocarya fraxinifolia*; cross-section at distal level of ovule primordium;  $\times 380$ . — b. *Engelhardia spicata*; ibidem.

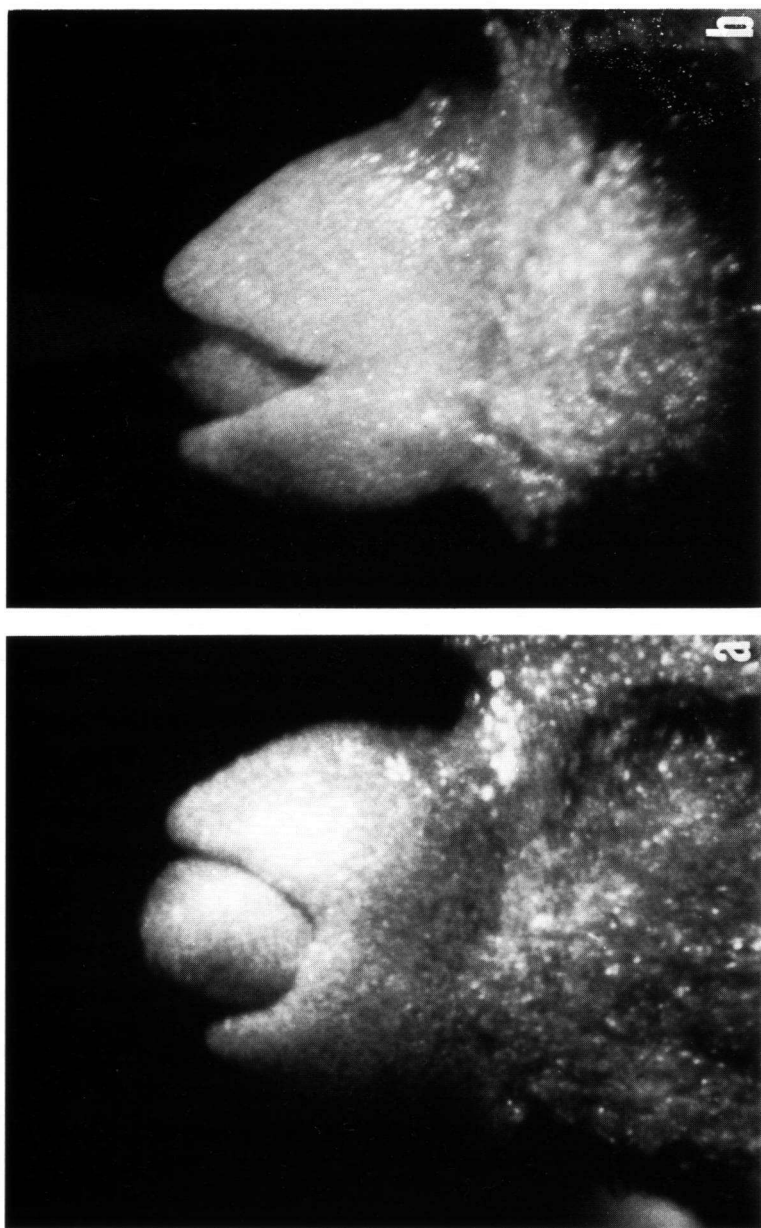


Plate II. a, b. *Pterocarya fraxinifolia*; developing ovules, external view;  $\times 150$ .