

RECORD OF *CYMODOCEA NODOSA* (Ucria) Aschers FRUITING IN A PRAIRIE OF THE ISLE OF ISCHIA (GULF OF NAPLES)

by

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Résumé: Dans le mois de Septembre 1982, on a observé la fructification de deux herbiers à *Cymodocea nodosa* près de l'île d'Ischia. La distribution des fruits dans les herbiers observés prouve que cette plante se reproduit végétativement par stolonisation sur les substrats de nouvelle colonisation, tandis que la reproduction sexuelle a lieu seulement quand l'herbier est déjà établi.

Records of the flowering and/or fruiting of *Cymodocea nodosa* (UCRIA) ASCHERS in the Mediterranean are scarce. According to DEN HARTOG (1970) and SIMONETTI (1973) the flowering and/or fruiting was observed as follows:

TABLE n. 1

Localities	Authors	Date	Flowers or Fruit
Spain-Torrevieja	Lemavres P.	29/5/1886	male flowers
France-Antibes	Bornet E.	25/5/1861	" "
" "	"	4/6/1861	" "
" "	"	18/6/1861	" "
" "	"	7/1861	fruit
Turkey-Smirne	Balauza B.	8/8/1854	flowers, fruit
Israel-Acco Harban	Lipkin Y.	16/8/1963	fruit
Algeria-Oran	Balauza B.	9/6/1852	m. flow., fruit
Italy-Trieste	Pospichal E.	1897	flowers

SIMONETTI (1973) observed flowering in April-May and fruiting in June-August each year from 1966 to 1969 in the Gulf of Trieste. LIPKIN (1977) reported that the fruiting of *Cymodocea nodosa* is common in July and August along the Israel coasts.

In September 1982 fruit and seedlings were collected off Ischia (Gulf of Naples), in a shallow meadow, situated near the harbour of Ischia Porto. The meadow (St.1 in Tab.2) extends from 1m to 2m, growing on a muddy-sand bottom and on dead "matte" of *Posidonia oceanica* (L.) Delile interrupted by some patches of living *Posidonia*. A further investigation was performed in an adjacent meadow at a depth of 4m (St.2 in Tab. n.2), where *Cymodocea nodosa* grows on dead "matte" together with *Caulerpa prolifera*, extending to the sandy bottom. The two prairies were com-

pared by collecting all the plants together with the rhizoms/roots within a 40x40cm square. Two samplings were made at station n.1(a₁,a₂); four samplings were collected at station n.2: two in a portion of the meadow settled on dead "matte" of *Posidonia oceanica* (a₁,a₂) and two among the bundles growing on soft bottom at the edge of the meadow (b₁, b₂).

All the bundles collected were counted; among the shoots deriving from rhizoms, those bearing sessile fruit at their base were separated. Seedlings and fruit freely distributed in the sediment among the roots were also counted (Tab.2)

TABLE n. 2

Stations	Total shoots	Sh. with fruit	Seedlings	Free fruit
1/a ₁	341	2	77	135
1/a ₂	672	2	--	10
2/a ₁	388	10	--	16
2/a ₂	232	2	--	--
2/b ₁	223	--	--	--
2/b ₂	243	--	--	--

The greatest number of free fruit, and all seedlings, were found in low density patches of the meadow n.1 (a₁). In station n.2 the fruit were particularly abundant in the most dense patch of the meadow growing on dead "matte" of *Posidonia oceanica* (2/a₁). Finally, no fruit was present among the plants growing on soft bottom (2/b₁,2/b₂).

In the prairie investigated the fruiting does not seem to be a homogeneous phenomenon and is probably not correlated with density of the shoots but with maturity of the prairie itself. In fact, it appears that *Cymodocea nodosa* colonizes substrate by means of new stolons, but once it is established, generative reproduction also occurs and then flowering and fruiting seems to be common.

References

- DEN HARTOG C., 1970 - Seagrasses of the world. North Holland, Amsterdam, 275 pp.
 LIPKIN Y., 1977 - Seagrass vegetation of Sinai and Israel. In: "Seagrass ecosystems", ed. C.P.McRoy and C. Helfferich, 264-293.
 SIMONETTI G., 1973 - I consorzi a fanerogame marine nel Golfo di Trieste. Atti Istituto Veneto di Scienze, Lettere ed Arti, Tomo CXXXI, 459-502.