

25. PILULARIA MINUTA DURIEU (MARSILEACEAE) AND
LITTORELLA UNIFLORA (L.) ASCHERSON (PLANTAGINACEAE)
IN SOUTH WEST ANDALUSIA

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Pilularia minuta Durieu (*)

Pilularia minuta Durieu is regionally common in the Western and Eastern Mediterranean (RITA, 1981; GREUTER & al., 1984). So far, the only habitat on the Iberian Peninsula was reported near Sagres in the Southwest of Portugal (AMARAL FRANCO & ROCHA AFONSO, 1982).

On April 17, 1990, the authors discovered a rather large growth of *Pilularia minuta* Durieu in the province of Seville, south of Aznalcazar (road from Aznalcazar to the Isla Mayor, km 4). In the amphibian zone of the ephemeral water on muddy, fine clay this species formed a patch of several square metres. The plants had developed sporocarpiis profusely. Accompanying species were *Isoetes velata* A. Br., *Juncus bufonius* L. and *Illecebrum verticillatum* L.

The authors visited the habitat again on April 5, 1991. The species was still there abundantly. The locality is however considerably endangered by road works carried out on the adjacent road. The small narrow leaves of the *Pilularia minuta* Durieu protruding from the mud are very similar to the young leaves of the accompanying annual *Juncus* species. This could explain why the species was overlooked in Spain so far. Additionally, *Pilularia minuta* Durieu does not seem to commonly appear in ephemeral waters: no further example of this species could be found in any of a dozen of other waters in the surroundings of the discovered habitat in 1991.

Littorella uniflora (L.) Ascherson

Littorella uniflora (L.) Ascherson is usually found in the north subatlantic region. On the Iberian peninsula the species is found in the far west, near the Atlantic to south of Lisbon only. One habitat in Morocco is known (MEUSEL & al., 1978).

On April 4, 1991, the authors found three habitats of *Littorella uniflora* (L.) Ascherson 5 km east of Mazagon (province of Huelva) (road from Mazagon to

(*) Ampliamos el área de esta especie en la Península Ibérica con las siguientes localidades: HUELVA. Hinojos, Buchicao, arenas húmedas, 11.IV.1989, Aparicio, Gallego & Silvestre (SEV 118380); ibidem, 23.V.1991, Silvestre (SEV 118381); ibidem, entre Villablanca y San Silvestre de Guzmán, 17.VI.1991, García Murillo (SEV 118382).