

ON THE OCCURRENCE OF *Lithophyllum tortuosum* (Esper) Foslie  
IN THE NORTH ADRIATIC SEA

Nevenka ZAVODNIK and Dušan ZAVODNIK

Center for Marine Research, "Rudjer Bošković" Institute,  
52210 Rovinj, Yugoslavia

Abstract. The distribution of *L. tortuosum*, the morphology of its colonies, and its ecological significance in the North Adriatic midlittoral zone are discussed.

Résumé. La distribution du *L. tortuosum*, la morphologie de ces peuplements, et son importance écologique dans l'étage médiolittoral Nord Adriatique sont discutées.

In the North Adriatic, a calcareous rhodophyte *Lithophyllum tortuosum* is distributed much more extensively than was previously suggested (1). We have found it, in the course of standard biocoenological surveys, at 223 coastal stations located in the Kvarner area of the North Adriatic, at numerous sites along the eastern and southern coast of the Istrian Peninsula, and on Krk, Cres and Lošinj islands. Our data confirm that in the Adriatic Sea *L. tortuosum* is not distributed north of Rovinj, as suggested already by Schifferner (2).

This species is characteristic of the midlittoral zone of rocky shores which are fully or moderately exposed to waves. Therefore, in the areas investigated, its distribution generally coincides with areas exposed to wave action caused by the severe NE wind bora (1), or the SE wind scirocco.

At the sites surveyed, *L. tortuosum* was growing primarily in the form of bolsters rather than forming thin calcareous belts or pavements, about 10-30 cm wide which can exist along the coast continuously for tens or hundreds of meters. On smooth rocks, especially in somewhat sheltered habitats, *Lithophyllum* bolsters are often less distinct and are limited to the lower midlittoral zone. But, in shaded vertical cracks and crevices where water movements are accentuated, the bolsters are often luxuriously developed, about 10-15 cm in diameter, and can reach the level of about one meter above the MHW. We have never found well built midlittoral banks of this species as previously described in the Western Mediterranean (3,4) and in the South Adriatic (5,6).

The ecological importance of *L. tortuosum* settlements in the North Adriatic seems much less in comparison with other areas although the interstitial fauna is very similar. Live calcareous thalli are very rarely epiphytized by other

