

belbachirnoredine@hotmail.fr

Preliminary study of the monthly evolution of the leaf area index of *Posidonia oceanica* (L.) Delile in two areas of the coastal fringe of Mostaganem (Hadjadj, Stidia - Algeria)

Noredine Belbachir and Karim Mezali

Faculté des Sciences Exactes et Sciences de la Nature et de la Vie
Département des ressources halieutique, BP 300, Université Abdelhamid Ibn Badis de Mostaganem, Algérie.

A monthly survey of the Leaf area index of *Posidonia oceanica* of two areas (Hadjadj, Stidia) in Mostaganem coastal fringe, was carried out from February to July 2011 with an average depth of -3m; that for having an outline and comparison on the vitality of the *Posidonia* meadows of these two areas. In Hadjadj station, the leaf area index (in m² of leafs per m² of surface of the bottom) shows a monthly variation with a minimum recorded in February (6.15 ± 2.64 m²/m²) and a maximum in June (9.09 ± 3.35 m²/m²). At Stidia area, the leaf area index also presents monthly variations with a minimum recorded in February (1.36 ± 0.78 m²/m²) and a maximum in May (3.40 ± 1.28 m²/m²). The state of health of the *Posidonia oceanica* meadow at Hadjadj area is better than that of the Stidia area, since the values of the leaf area index obtained in Hadjadj are definitely higher than those obtained in Stidia ($P < 0,01$). However, the leaf area index of *Posidonia oceanica* obtained in both studied areas present values which are abnormal, thus translating a sign of disturbance.

Key words: *Posidonia oceanica*, Leaf area index, perturbation, Mostaganem.