

Morpho-chronological variations and primary production in *Posidonia* sea grass from Western Australia

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The occurrence of morpho-chronological variations was demonstrated in three Australian species of phanerogams, *Posidonia australis*, *Posidonia coriacea* and *Posidonia sinuosa*, which are found living around Rottnest Island (Western Australia). Three chronological parameters were identified: the thickness of dead sheaths, the internodal distance and the regular presence of floral stalk remains. The foliar primary production for these three species, as estimated using the lepidochronology method, is very high since values of 1374, 1811 and 678 mg dw shoot⁻¹y⁻¹ were recorded, respectively. Rhizome production values range from 70.6 and 376.7 mg dw shoot⁻¹y⁻¹ for *Posidonia coriacea* and *Posidonia australis* respectively. The results obtained are very encouraging and confirm that these morpho-chronological variations are particularly well developed for the genus *Posidonia*.