

Morphochronological variations in the genus *Posidonia*

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Abstract. Morphochronological variations have been observed in five marine phanerogams of the genus *Posidonia* in the two regions where they occur (Mediterranean and Western Australia). The occurrence of these variations, which is comparable to that of growth rings in trees (studied in dendrochronology), has provided a basis for developing new techniques for the investigation of characteristics of these underwater seagrass meadows (e.g. primary production). The development of lepidochronology in the assessment of primary production has the advantage of being rapid and allowing the determination of the total foliar tissue production (leaf blade and leaf sheath) including that of species for which no data were hitherto available.

Extra keywords: Seagrass, Australia, Mediterranean, lepidochronology, primary production