Identification of cryptic species in the lessonia nigrescens complex (phaeophyceae, laminariales)

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The kelp Lessonia nigrescens Bory is the most ecologically and economically important seaweed in rocky intertidal and shallow subtidal habitats along the temperate Pacific South American coasts. Recent molecular studies suggest the existence of two lineages, one (northern lineage) from 17°S to 30°S and a second (central lineage) from 29°S to 41°S. To identify and name these lineages we performed morphological, nomenclatural and field studies. Four external and three internal anatomical traits permitted a morphological separation of the two lineages. The internal structure of both lineages was different from the isolectotype of Lessonia nigrescens. It is therefore concluded that the name Lessonia nigrescens should not be used for the Chilean material. Chordaria spicata Suhr appears as the oldest available name for the central lineage, while Lessonia berteroana Montagne is the oldest name for the northern lineage. In both cases, the type material consisted of small-sized, apical branches