

Henkel, S. K., G. E. Hofmann, and A. C. Whitmer. 2007. Morphological and genetic variation in *Egregia menziesii* over a latitudinal gradient. *Botanica Marina* 50:159-170.

Abstract: This study characterized morphological variation in the kelp, *Egregia menziesii*, over a large geographic scale. Marked differences in rachis and lateral blade morphology were observed, suggesting local adaptation to the variable conditions of wave exposure and upwelling found across the study area. Observations of rachis type at different developmental stages indicated differential survivorship of smooth versus papillated individuals at sites with differing wave exposure. Variations in *Egregia* morphology have long been recognized and were previously used for discriminating species within the genus; thus, we tested the hypothesis that the different morphological forms reflect genetically distinct populations. Nucleotide sequences of the ITS regions did not reveal genetic structure among three, morphologically distinct populations providing little evidence for speciation in *Egregia*.