

Turkish Journal of Botany

Turkish Journal

of

Botany

Conservation biology of *Asperula daphneola* (Rubiaceae) in Western Turkey

Salih GÜCEL¹, Özcan SEÇMEN²

¹Near East University, Environmental Sciences Institute, Nicosia, CYPRUS

²Ege University, Science Faculty, Biology Department, İzmir - TURKEY

 [Keywords](#)
[Authors](#)



bot@tubitak.gov.tr

[Scientific Journals Home](#)
[Page](#)

Abstract: *A. daphneola* O.Schwarz (Rubiaceae) was originally recorded from a single location on Nif Mountain (Kemalpaşa) in western Turkey. This study was carried out from 2001 to 2004 to investigate the causes of this endemic species' restricted distribution. To that end, the environmental conditions and reproductive biology of the species were studied. As a result of field investigations, 4 additional locations were identified. These 5 localities (the peak of Nif Mountain, Alaca Mountain, Ayrica Mountain, Bölme Hill, and another locality west of Nif Mountain) encompass an area of 2.5 km². The total number of individuals in these localities was estimated to be 7956. The species had been declared as vulnerable (Vu) according to the 1994 IUCN categories. Our studies led us to recommend it as critically endangered (CR) B2ab(ii)+(iii), according to the 2001 IUCN categories. Our study of its pollination ecology demonstrated that *A. daphneola* is strictly autogamous and that the timing of pollen viability and stigma receptivity are synchronous. The seed/ovule ratio was calculated as 1:1. The seed/ovule ratio and observed low seed germination percentage could be the result of autogamy. Autogamy is contributing to the decline of this species' population.

Key words: *Asperula daphneola*, conservation biology, Nif Mountain, Turkey

Turk. J. Bot., **33**, (2009), 257-262.

Full text: [pdf](#)

Other articles published in the same issue: [Turk. J. Bot.,vol.33,iss.4.](#)