

Sardinian Boraginaceae are new potential sources of gamma-linolenic acid

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© 2016 The aim of this work was to establish the richness in γ -linolenic acid (GLA, 18:3n6) and stearidonic acid (SDA, 18:4n3) of several Sardinian Boraginaceae species. To this end, seeds of selected species were collected from their natural habitats and analysed. The highest GLA contents were found in the seed oils of two endemic *Borago* taxa, i.e. *B. morisiana* (24.4 and 24.6% GLA of total fatty acids for samples from San Pietro Island and Sardinia Island, respectively), and 22.9% GLA for *B. pygmaea*. Both *Borago* species contained more GLA than *B. officinalis* collected in the same ecosystems. SDA was found in significant amounts in *Echium plantagineum* seed oil from the Lattias Mountains (15% SDA of total fatty acids). It is notable that both *Borago* GLA-rich species are under threat of extinction, thus revealing the importance of the preservation of the natural Sardinian ecosystems for endangered species and human health.