



The rediscovery of *Stachys virgata* (Lamiaceae), a rare endemic of Peloponnisos, Greece: taxonomy, distribution, karyology and conservation

THEOPHANIS CONSTANTINIDIS*, ELEFThERIOS KALPOUTZAKIS & KONSTANTINOS KOUGIOUMOUTZIS
Department of Ecology & Systematics, Faculty of Biology, National and Kapodistrian University of Athens, Panepistimiopolis, 157 03 Athens, Greece; e-mail: constgr@biol.uoa.gr
*author for correspondence

Abstract

Stachys virgata, a rare Greek member of *S.* subsect. *Rectae*, was hitherto known from historical collections made in the north-eastern and southern parts of Peloponnisos, the last one dated in 1844. Its only recent record, on Poros Island in 1940, is not supported by a herbarium specimen. The species was rediscovered in 2005, 161 years after its last collection, and subsequently documented in 18 populations (1 of them now extinct) distributed along the eastern slopes of Mt. Parnonas and Mt. Madara in east Peloponnisos. We review the species' description and distribution based on both historical records and recent collections, select a specimen deposited in the Natural History Museum, Paris (P) as a lectotype, and count its chromosome number, $2n = 34$, for the first time. We evaluate the species' taxonomic relationships and consider its threats and conservation status based on our own field work and several years of monitoring. *S. virgata* totals 355 mature plants and 12 out of its 18 populations comprise 20 plants or fewer. Based on the IUCN criteria, *S. virgata* falls under the Endangered (EN) category and specific conservation measures are proposed. Finally, we provide a key distinguishing *S. virgata* from the other Greek members of *S.* subsect. *Rectae*.

Key words: distribution, extinction, Stachydeae, threatened species, typification

Introduction

Stachys Linnaeus (1753: 580), the largest genus of Stachydeae (Lamiaceae subfamily Lamioideae), comprises approximately 300 species with a worldwide distribution (Salmaki *et al.* 2013, Tundis *et al.* 2014). *Stachys* is well represented in the Balkans, Turkey and the Irano-Turanian area, where 20 of the 23 currently recognized sections (excluding *Betonica* Linnaeus 1753: 573) are found (Salmaki *et al.* 2012). Greece hosts 38 species, 16 of which are endemics usually locally distributed; some of them, e.g. *S. cretica* Linnaeus (1753: 581), *S. recta* Linnaeus (1767: 82), *S. swainsonii* Bentham (1834: 535), are particularly polymorphic and further divided into distinct subspecies (Dimopoulos *et al.* 2013). Among the Greek narrow endemics, the least known is *S. virgata* Bory de Saint-Vincent & Chaubard (1832: 166), a local species undocumented for over 150 years. Similar plant species not found for many decades can be considered as presumably extinct until their rediscovery (Constantinidis & Vassiliades 1996, Pereira *et al.* 2002, Eker & Akan 2010, Simpson *et al.* 2013, Romero & Woodgyer 2014).

Stachys virgata, a tall and not easily overlooked plant endemic to Peloponnisos (south part of Greek mainland), was discovered in Argolida in the early 19th century, near the small town of Kranidi, as well as in the wider region of the Methana peninsula and Trizinia, where it was either reported or collected by the French botanists J.B.G.M. Bory de Saint-Vincent, L.A. Chaubard and J.M. Dèspréaux (Bory de Saint-Vincent & Chaubard 1832). *S. virgata* was probably first seen between 1828 and 1831; the exact year of its collection in Peloponnisos is rather vague. On most labels of the extant old collections (BR!, G!, P!, WU!) no date is provided and the locality is often discouragingly imprecise: 'Morée', an old name of Peloponnisos as a whole. When the species was described in 1832, it was also illustrated in plate XVII (Bory de Saint-Vincent & Chaubard 1832). Six years later, Chaubard & Bory de Saint-Vincent (1838: 37, Plate XVIII) reproduced the species' localities and illustration information. An early collection, apparently prior to 1835, was also made near Astros, by X. Landerer and J. Sartori (BR!). In 1844, the French amateur botanist S.R. Lenormand collected *S. virgata* in the ruins of an ancient temple or settlement in Cape Tenaron ('ruines