

Fuscopannaria leucosticta (Tuck.) P.M. Jørg. rediscovered in Europe

Fuscopannaria leucosticta was first described by Tuckerman (1859) from the eastern United States. During the course of the 20th century, the species was widely reported from Europe, especially in central and south-eastern Europe (e.g. Körber 1865, 1867, as *Pannaria craspedia*; Zahlbruckner 1906; Szatala 1943; Krause & Klement 1962; Poelt 1969, as *Pannaria leucosticta* Tuck.). Much of this material was, however, subsequently shown to belong to a distinct Mediterranean species, *Fuscopannaria olivacea*, described by Jørgensen (1978). The few records of *F. leucosticta* from Europe (Italy and Slovenia) accepted by Jørgensen all date from 1902 or earlier, leading him to speculate that it may have become extinct. This assumption was restated in a recent article reporting the species for the first time from the tropics (Jørgensen & Sipman 2007). Jørgensen (1978) has already pointed out the Tertiary relict nature of the world distribution of *F. leucosticta*. The map provided by Jørgensen & Sipman (2007) clearly shows the 'East-East'-type distribution of the species, centred on Tertiary relict hotspots of eastern Asia and eastern North America, with disjunct populations in Africa, central America, and Ecuador. A prominent cross on the map represents the previous occurrence of the now extinct species in northern Italy [a recent specimen reported from southern Turkey by John & Nimis (1998) was not shown on the map and could not be checked for the present paper]. Jørgensen (1978) hypothesized that the European population must have survived Quaternary glaciations in the forests of the Balkans.

The mountains and ravines of the Balkans have long been recognized as a hotspot for Tertiary relicts and are often mentioned as a main source of post-glacial recolonization by plants and animals in Europe (e.g. Taberlet

et al. 1998). During recent lichen surveys in the Pindos Mountains and Arachthos River region in northern Greece, I had the opportunity to study epiphytic cyanolichen communities in montane *Quercus* woodlands and *Abies borisii-regis* forests, documenting over 120 epiphytic macrolichen species (T. Spribille, unpublished data). These included several species of *Fuscopannaria*, including the two most common species, *F. olivacea* and *F. mediterranea*, which frequently occur on *Quercus frainetto* and *Abies* bark, and the rarer *F. sampaiana*, found once on *Abies*. Most interesting was the discovery of *F. leucosticta* in an open woodland locality particularly rich in frost-sensitive, broad-leaved evergreen scrub, including *Laurus nobilis*, *Arbutus unedo* and *Daphne laureola*. Here it was corticolous on *Phillyrea latifolia*, where it was closely associated with the superficially similar *Pannaria rubiginosa*, which also appears to be uncommon in northern Greece. The mixed evergreen-deciduous woodland on the steep east-facing walls of the Arachthos River gorge is composed of *Ostrya carpinifolia*, *Phillyrea latifolia*, *Quercus ilex*, *Carpinus orientalis*, *Fraxinus ornus* and *Pistacia terebinthus*.

Fuscopannaria leucosticta is one of the rarest macrolichens in Europe. The specimen cited here represents the first confirmed collection of the species in Europe in 107 years and the first correct report from Greece [previous reports of *F. leucosticta* can be referred to *F. olivacea*, see Jørgensen (1978) and Spribille *et al.* (2006)]. The species was found at a single locality in 2006; the full extent of the population is not known. Population surveys and conservation measures to ensure long-term viability and habitat conservation will be important for ensuring the protection of what may be the only extant European population of *F. leucosticta*.

Specimens examined. **Greece:** *Epirus:* Nomos Ioanninon, west of Arachthos River above Politsa, 39°31'02-04"N 20°59'57-58"E, on bark of *Phillyrea latifolia*, elev. 460–500 m, 2006, T. Spribille 19863 (GZU, confirmed by P. M. Jørgensen).—**Japan:** *Honshu:* prov. Suruga, Shin-i gome, Mt. Fuji, 1960, *Kashiwadami* 16530 (BG).—**USA:** *North Carolina:* Swain Co, Great Smoky Mountains National Park, 2004, T. Tønsberg 34171, 34176 (BG).

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