Short note on the first record of *Lymantria atlantica* on Elba (Lepidoptera: Lymantriidae)

Florian Altermatt

Dipl.-Biol. Florian Altermatt, Zoologisches Institut der Universität Basel, Vesalgasse 1, CH-4051 Basel, Switzerland; florian.altermatt@unibas.ch

Abstract: *Lymantria atlantica* (Rambur, 1937) is recorded on Elba (Italy) for the first time. It was found in one locality together with eight other rather common Macrolepidoptera species. In the context of another finding of *L. atlantica* in the Tuscan archipelago this could be a recent eastward range expansion of this species from Corsica towards the Italian mainland.

Key words: island, new record, Tuscan Archipelago.

Kurze Notiz über den Erstnachweis von *Lymantria atlantica* auf Elba (Lepidoptera: Lymantriidae)

Zusammenfassung: *Lymantria atlantica* (Rambur, 1937) wird das erste Mal von Elba (Italien) gemeldet. Die Art wurde an einer Lokalität zusammen mit acht häufigen Großschmetterlingsarten gefunden. Im Zusammenhang mit einem weiteren Fund von *L. atlantica* im toskanischen Archipel könnte dies auf eine rezente Ostausdehnung des Verbreitungsgebietes Richtung italienisches Festland hindeuten.

Piccola nota sul primo rinvenimento di *Lymantria atlantica* sull'isola d'Elba (Lepidoptera: Lymantriidae)

Riassunto: *Lymantria atlantica* (Rambur, 1937) è stata rinvenuta per la prima volta sull'isola d'Elba, in una località assieme ad altre otto speci piuttosto comuni di Macrolepidoptera. Ciò, in relazione ad un altro ritrovamento della stessa specie nell'arcipelago toscano, suggerisce un'espansione recente di *L. atlantica* verso est, dalla Corsica verso la terraferma italiana.

Introduction

Each species has a specific geographical distribution. The distribution reflects the species' ecological and climatic requirements as well as its evolutionary past. It is not static but changes due to active migration, invasion and passive introduction (e.g. by humans). Therefore, the fauna of a specific area is continuously changing. These changes are of great interest, as they can indicate possible changes in climate or land use, and are of special interest if the species is a potential pest.

The ability to detect changes requires knowledge of the actual distribution of a species and its range boundaries. But very often the exact boundaries of a species' range are difficult to assess, and are rather vague in absence of geographical obstacles as for example mountain ranges, land-water borderlines or deserts. An exception is the discrete occurrence of potential habitats on islands, where potential occurrence is limited to clearly definable areas that are surrounded by unfavorable areas. Thus, islands are very suitable areas to detect changes in a species' distribution.

Though the location of the Tuscan archipelago between Corsica and the Italian mainland and nearby Sardinia is biogeographically very interesting, little is known about its Lepidoptera fauna (Dapporto et al. 1999). Here, I report for the first time the occurrence of *Lymantria atlantia* (Rambur 1837) on Elba in the Tuscan archipelago and give records of eight additional species found in the same locality. My observations give insight into the actual distribution of these species and could indicate a range expansion for one of them.

Material and method

All specimens were caught in the night of the 30. x. 2005 on the peninsula of Capo de la Stella in Southern Elba. The moths were observed in the illuminated sanitary facilities of a camping ground. These facilities were surrounded by tent sites and vegetation poor in species. Natural understorey was practically absent. Only *Pinus* sp., *Eucalyptus* sp. and *Opuntia* sp. were present in a park-like manner.

The specimens are preserved in the collection of the author. Nomenclature follows Karsholt & Razowski (1996). Determination after de Freina & Witt (1987), Fibiger (1993) and Ronkay et al. (2001).

Results – register of the fauna

All observed specimens (locality: Capo de la Stella, Elba, date: 30. x. 2005) in systematical order.

Noctuidae

Mniotype solieri (Boisduval, 1840): examined specimens 4 ♂♂.

Noctua comes (Hübner, 1813): 3 ♂♂.

Noctua interjecta (Hübner, 1803): 1 ♂.

Xestia xanthographa ([Denis & Schiffermüller], 1775): 3 ♂♂.

Xestia cohaesa (Herrich-Schäffer, 1849): 1 ♀.

Agrotis trux (Hübner, 1824): 1 ♂.

Lymantriidae

Lymantria atlantica (Rambur, 1837) f. aest. *maura:* 1 ♂.

Arctiidae

Eilema caniola (Hübner, 1808): 1 ♂, 1 ♀.

Cymbalophora pudica (Esper, 1784): >10 ♂♂.

Discussion

Lymantria atlantica is widely distributed in Northern Africa and also native in Spain, Corsica and Sardinia (de Freina & Witt 1987). Karsholt & Razowski (1996) reported it also for mainland France and gave questionable records from Portugal. No records were known from mainland Italy or nearby offshore islands. In 1998 it was discovered in the Tuscan Archipelago on Pianosa Island (Dapporto et al. 1999). Pianosa Island is a small island southwest of Elba with a distance to Capo de la Stella on Elba of about 26 km.

The closest known native populations of *L. atlantica* are on Corsica, about 40 to 45 km west of Pianosa Island and about 50 to 55 km west of Elba. But intensive investigations of the nocturnal moth fauna in the Tuscan Archipelago itself are scarce. Thus conclusive statements on the original faunal composition are impossible and *L. atlantica* could have occurred on Elba already in the past.

As *L. atlantica* is a distinctive species and easy to detect, I suggest that the record by Dapporto et al. (1999) and my record are indications of an eastward range extension of *L. atlantica* either trough active migration or due to passive introduction by humans. *L. atlantica* might have arrived in a stepwise process from Corsica to Pianosa Island and then to Elba. If continuing, this species might soon occur on the adjacent Italian mainland around Piombino. The biologically rather poor and ordinary vegetation at the place of finding suggests that a range expansion of *L. atlantica* will not be restricted by requirements on high quality habitats.

Most of the accompanying species found at Capo de la Stella are widely distributed and very common. Only the observation of *Xestia cohaesa* is remarkable, as it requires habitats of specific qualities (Erlebach 1998).

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