

and often are bordered by another row of scales of blackish color, lateral lines are not evident. *Dendrophidion bivittatus* can be confused with snakes of the Genus *Liophis* WAGLER, 1830, in peculiar those of the *epinephelus* group, which also possess longitudinal lines, but they differ in having smooth scales, 8 supralabials and 1+2 temporals.

The record of *Dendrophidion bivittatus* in the zone of Intag confirms the presence of this species on the western slope of the Andes. From its coloration this species is easily confused with *D. dendrophis*. ALMENDÁRIZ (1991) added the latter to the list of snakes occurring on the western slopes of Andes, but our record of *D. bivittatus* suggests that *D. dendrophis* may have been included erroneously. According to TOUZET (pers. com.) an individual of *D. bivittatus* was found in Cononaco (01°31' 00"S, 75°36'00"W), Amazonian province of Pastaza in Ecuador. In 2001 one of us (JHV) checked this specimen deposited in the FHGO Reference Collection, at the Fundación Herpetológica Gustavo Orcés (Quito) and observed remarkable differences in coloration and number of scales when compared with other species of *Dendrophidion* (*brunneus*, *dendrophis*, *nuchale*, *percarinatus*), but also with the specimen from Intag concerning the absence of apical pits, increased number of infralabial scales, and dorsal coloration. We suggest that the specimen collected in Pastaza represents a species different from all other species mentioned previously; however it is necessary to obtain additional material of reference to determine its taxonomic status with certainty.

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### *Salamandra atra* LAURENTI, 1768 in the Ötztaler Alpen Massif (Austria, Italy)

According to GUÉX & GROSSENBACHER (2004) it is hard to find another European amphibian species in which the detailed distribution is as little known as for the Alpine Salamander *Salamandra atra* LAURENTI, 1768. Even within the largely interconnected alpine range areas of the typical subspecies *S. a. atra*, there is lack of records in certain tracts. The entire Ötztaler Alpen Massif represented one of these distributional gaps (CABELLA & GRILLITSCH 2001; GUÉX & GROSSENBACHER 2004; BONATO & FRACASSO 2006).

Two research trips to the Ötztaler Alpen Massif were both conducted in July, the most promising month for studying *S. atra*

(CABELA & GRILLITSCH 2001). Excursions were made from June 29 to July 10, 2003 (North Tyrol, CA HJ) and from July 4 to July 15, 2005 (South Tyrol, CA). In North Tyrol, due to a cold snap in the first half of July the temperatures were slightly subaverage in the otherwise extraordinary warm summer of 2003 (ZAMG without year). In South Tyrol, July temperatures were average in 2005, but the first half of the month was again rather cold and humid (HYDROGRAFISCHES AMT BOZEN 2005). Occasionally there was heavy rainfall in the study area during both trips (ZAMG without year; records by the author).

Excursions started from all the main valleys [German Tal = valley] Ötztal (Fundstul, Rettenbachtal, Gaislachalm), Pitztal (environs of Vens, Sechsteiger mountain, Pillertal, Oberlehner Alp, Trenkwald – Mittelbergsee, Taschachtal – Taschachalpe, Gries – Braunschweigerhütte), Kaunertal (Fernergraten – Im Wannet, Weißsee lake) in North Tyrol and Schnalstal, Pfossental, Seebertal, Spronsertal including Spronser Seenplatte lake area, Schlandrauntal, Penaudtal, Mateschertal, Langtaufertal and Sonnenberg near Naturns in South Tyrol. To find out if the Alpine Salamander is known to the locals, people there (farmers, staff of alpine huts, shepherds, hunters, foresters, etc.) were shown photographs of the Fire Salamander *Salamandra salamandra* (LINNAEUS, 1758), *S. atra* and various species of *Triturus* in their terrestrial eft stage.

The amphibian and reptile records gained during these excursions, are documented in the herpetofaunal data bank of the Natural History Museum in Vienna (North Tyrolian locations) and in the data bank of the Naturmuseum Südtirol in Bozen (South Tyrolian locations).

Interviews performed in the South Tyrolian portion of the Ötztaler Alpen Massif did not result in useful hints on the occurrence of Alpine Salamanders there. The animal is generally known by the locals, but not from the study area proper. The distinguishing features of the Fire Salamander, which is common in the lower parts of the Vinschgau valley, were clearly recognised and described. Two foresters met at Hochgang hut, claimed to know the Alpine Salamander from the Spronsertal valley. However, the only caudate amphibian we found in the Spronser

Seengebiet lake area was the Alpine Newt *Triturus alpestris* LAURENTI, 1768.

Thus, only a few vaguely published locality records may remain indicative for the presence of *S. atra* in the South Tyrolian part of the Ötztaler Alpen Massif:

(i) GREDLER (1872) mentions "Rabenstein", as a location where *S. atra* was said to occur. We could not unambiguously spot the site (whether at Moos in Passeier, Ötztaler Alpen Massif or in the Pensertal valley, Sarntaler Alpen Massif). GREDLER (1872) himself supposed mis-identification and confusion with the Alpine Newt. The erroneously given location "Meran" by LEYDIG (1867) was corrected already by GREDLER (1872).

(ii) WUNDERER (1910) had heard about the occurrence of *S. atra* at the village of Graun located in the Vinschgau valley. Graun is situated at the bottom of the valley close to the village of Reschen; this record was rated dubious by GUËX & GROSSENBACHER (2004). We share this view, even considering that remote record localities were designated by the name of a larger nearby settlement in the beginning of the 20th century.

(iii) Data sheets of the Natura 2000 areas "Pfossental" valley (IT3110011) and "Lazins-Schneebergzug" (IT3110012) in the Nature Park "Texelgruppe" (AUTONOME PROVINZ BOZEN – SÜDTIROL 2006) report on the frequent occurrence of *S. atra* there.

To the contrary, ERNST HOFER (Madling) who is (according to Kurt FLIRI from the Nature Park Information Centre, Naturns) an excellent connoisseur of the fauna of the Texelgruppe Massif, told us he had never seen any Alpine Salamanders in this area.

The North Tyrolian people interviewed confounded the Alpine Salamander quite regularly with the Alpine Newt; this became obvious when we pointed to the differences in belly colour. Finally we got relevant information by the DEUTSCHMANN family (Wenns), which led to the first and so far only spot where the Alpine Salamander was found in the Ötztaler Alpen Massif.

After 24 hours of heavy rainfall with short interruptions, the morning of July 4, 2003 we found four Alpine Salamanders at Zaunhof (Pitztal valley) on the road from Oberlehn (1490 m a.s.l.) to Ludwigsbrunn

Hütte (1935 m a.s.l.). The weather was cloudy and rainy at times. Two specimens (1740 m, and 1770 m a.s.l.; NHMW 36993: 2-3) had been run over; one male (1815 m a.s.l.; NHMW 36993: 1) and one female (1890 m a.s.l.) were hidden under stones. Our informants knew this species also from Zaunhof village itself (1265 m a.s.l.), situated only 50 m above the bottom of the valley. The adjacent habitats of small brooks, stands of green alder (*Alnus viridis*) and young spruce forest (*Picea abies*) with dense undergrowth of grasses well match the requirements of the Alpine Salamander in Austria (CABELA & GRILLITSCH 2001).

As to its geology, the Ötztaler Alpen Massif consists mainly of crystalline schist with some intercalation of dolomite limestone (e. g. the Schneebergzug range, AUTONOME PROVINZ BOZEN – SÜDTIROL 2006). The Ötztaler Alpen Massif shows the highest degree of glaciation within the Eastern Alps and makes up the driest area (continental mountain climate, characterized by low cumulative precipitation values and low average cloudiness degrees). The south is influenced by sub-Mediterranean climate (BOBEK et al. 1971; KILIAN et al. 1994).

Among South Tyrolian naturalists the absence of *S. atra* in the Ötztaler Alpen Massif is explained by the presence of the aforementioned bedrock material in that *S. atra* it is said to occur only in dolomite/limestone areas (BONATO & FRACASSO 2006; KRANEBITTER pers. comm.). Contrary to this opinion, in Austria, the species is well represented in the crystalline zones of the Central Alps, although not as widespread as in the Limestone Alps (cf. the distribution map in CABELA & GRILLITSCH 2001).

CABELA & GRILLITSCH (2001) considered the dry climate a possible reason for the Alpine Salamander's distribution gap in the Ötztaler Alpen Massif. However, since we found that the species does occur in the northern Austrian part of the mountain range, a refined explanation for its rareness in the area is required. The "new" site receives measurable precipitation through more than 110 days per year, the mean annual precipitation being at least 1000 mm. Different from North Tyrol, in South Tyrol (with the exception of small high altitude regions near the main ridge) the number of

precipitation days is less, while the annual precipitation is as high as in North Tyrol (BOBEK et al. 1971). Thus, not the amount, but the frequency of precipitation could be relevant for the distribution of the Alpine Salamander in the study area. The Alpine Salamander's occurrence in the abovementioned Natura 2000 areas could be compatible with this assumption.

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## On the diet of *Rhadinaea decorata* (GÜNTHER, 1858)

*Rhadinaea decorata* (GÜNTHER, 1858) is a small diurnal leaf litter snake commonly encountered in a variety of tropical forests in Central America. In Costa Rica it is a broadly distributed and a regularly encountered species, however, little is still known of its ecology (SAVAGE 2002). In



Fig. 1: *Rhadinaea decorata* (GÜNTHER, 1858) grasping *Ameiva festiva* (LICHTENSTEIN & VON MARTENS, 1856).



Fig. 2: *Rhadinaea decorata* (GÜNTHER, 1858) swallowing *Ameiva festiva* (LICHTENSTEIN & VON MARTENS, 1856).

January 2002 on the edge of a Lowland Forest near Barra del Colorado, Costa Rica we attempted to take a photograph of a young, basking, *Ameiva festiva* (LICHTENSTEIN & VON MARTENS, 1856) (Teiidae). To our surprise as we prepared to take the photograph an adult *R. decorata* (20-30 cm TL approx.) struck out and grasped the lizard from underneath a small flat rock adjacent to the lizard (Fig. 1). It seized the lizard at the anterior and back right thigh and rapidly proceeded to constrict the individual using two coils from the upper third of its body. After approximately half a minute the snake then proceeded to swallow the lizard from the rear (Fig. 2). The photos clearly show the meal was proportional to the snake. With respect to the snake's fair challenge on such a fast and active diurnal lizard, and in the interests of nature conservation, we allowed the snake to retreat after its meal with no disturbance. This species is known to forage for small lizards, salamanders and also frogs of the genus *Eleutherodactylus* (Leptodactylidae) and their eggs (SAVAGE 2002). What was interesting about this encounter was that the snake struck clearly from within a hide suggesting that this species hunts using both a stealth 'sit and wait' approach as well as active foraging.

REFERENCE: SAVAGE, J. M. (2002): The amphibians and reptiles of Costa Rica: a herpetofauna between two continents, between two seas. Chicago (The University of Chicago Press), 934 pp.

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