

SUMMARY

Status and distribution of *Salamandra salamandra* (Linnaeus, 1758) in Poland with special regard to the population of the Góry Bardzkie Mts. (Central Sudety Mts.)

The fire salamander is one of the most widely distributed amphibian species in Europe, but lives mainly in mountain regions. It occurs from the Iberian Peninsula to Iran, and from North Africa to N Germany. In Poland it occurs almost exclusively in the mountains: regionally in the Sudetes, while in the Carpathians is more widespread (ryc. 1). Some former localities are known from the Kraków-Częstochowa Upland and Roztocze region. The species inhabits a broad altitudinal range between 230 and 1350 m a.s.l. (Tatra Mts.).

Population of *Salamandra salamandra* from the environs of Moryszów in the Góry Bardzkie Mts. was carefully investigated (Sudety Mts.; Fig. 2). Analysis of its colour patterns is based on 126 animal photographs, including 74 females and 52 males. Altogether 5 pattern types of back sides are distinguished: striped, spot-striped, strip-spotted, spotted and zigzaggy form. (Fig. 3). Body length of adult individuals was from 115 to 175 mm. Males (115-170 mm, mean length 145) were smaller than females (125-175 mm). Females were also heavier (10-28.5 g, mean weight 19.5 g) than males (10-24 g, mean weight 17.7 g). The population numbers 528 individuals and its mean density is about 38 adult animals per 1 hectare.

Salamandra salamandra has an unusual mode of reproduction. Females retain eggs in their oviducts and give birth to aquatic larvae or, in some populations, to fully metamorphosed juveniles.

Births of larvae started in the last decade of April and the biggest number of newborn larvae was observed in the turn of April and May. Last births took place in the middle of May. The newborn larvae were 26-32 mm in length and weighted 0.18-0.64 g (mean value 0.3 g). Growth of their body length has a rectilinear character and directly before the metamorphosis the length was 50-55 mm. Metamorphoses were observed from the end of July to about 20th August. 24.08. not a single larva was recorded.

The fire salamander is mainly restricted to deciduous and mixed forests; however, in some areas coniferous forests are inhabited. It is a vulnerable species. Pollution of breeding waters by fertilizers, pesticides and acid rain is expected to become the most important factor of population decline. Protected by law.