

NATURAL HISTORY NOTES

Natural History Notes features short articles documenting original observations made of amphibians and reptiles mostly in the field. Format details and other guidelines are available in *Herpetological Bulletin* No. 78, Winter 2001.

CHALCIDES CHALCIDES (Three-toed Skink): COMMUNAL HIBERNACULA. Several aspects of the ecology of *Chalcides chalcides* are poorly known (but see Rugiero, 1997), and indeed there is almost no data available on the hibernation phase of these animals (see, e.g., Corti & Lo Cascio, 2002).

During field surveys conducted in the winter at a study area situated around the village of Castel di Guido, approximately 15 km north of Rome ('Malagrotta-Castel di Guido', Latium, central Italy), we made some noteworthy observations on communal hibernacula of *Chalcides chalcides*. These data were gathered in February 2000 during an environmental impact assessment of a site designated for the construction of a rubbish incineration facility (Azienda Municipale Ambiente). This area is characterised by open grassy fields interspersed with bushes of *Rubus* spp., growing especially along a small stream ('Fosso Galeria'). The local climate is Mediterranean-temperate, with cold winters (without snow), rainy springs and autumns, and dry and hot summers (hypomesaxeric subregion type B, according to Tomaselli et al., 1973). The fauna is depauperate; among reptiles, apart from the species studied here, the following species are found: *Vipera aspis*, *Natrix natrix*, *Coluber viridiflavus*, *Elaphe longissima*, *Lacerta bilineata*, *Podarcis sicula*, *P. muralis*, and *Testudo hermanni* (Filippi, 2000).

While excavating the clay foundations during the morning of (6th, 17th and 18th February), some of the AMA engineering staff called for our attention to show us what they had found: on four occasions, always at a depth of about 30-35 cm below ground, they had unearthed groups of hibernating *Chalcides chalcides*. Although obviously sluggish, the lizards were able to make slow movements while handled. The groups were comprised of, respectively, 4 (1 male with 3 females), 3 (all females), 6 (3 juveniles, 1 male, and 2 females), and 3 (2 males, and 1 female) individuals. All specimens excavated from the latter hibernaculum were accidentally killed during the excavations; they were subsequently preserved in alcohol, and are now stored in the collections of the Museo Civico di Zoologia, Rome. On no occasions were specimens of *C. chalcides* found hibernating singularly at a site. The linear distance between hibernacula is presented in Table 1. The body size (SVL) of all the specimens, divided by hibernaculum, is presented in Table 2. Males were slightly smaller than females, and most females had an average SVL of 120 to 130 mm, which is in full agreement with data reported by Rugiero (1997) for another population of *Chalcides chalcides* living at about 20 km linear distance from our study area.

Our observations, although opportunistically collected, demonstrate that *Chalcides chalcides* may hibernate communally, at least on clay substrates in central Italy. We do not have firm (experimental) data about this phenomenon, but it seems reasonable to assume that the use of communal hibernacula by this species is usual for populations in this region.

	Hibernaculum B	Hibernaculum C	Hibernaculum D
Hibernaculum A	122.7	310.1	342.0
Hibernaculum B	***	214.4	270.0
Hibernaculum C		***	88.6

Table 1. Linear distance (m) between four hibernacula of *Chalcides chalcides* at the study area ('Malagrotta-Castel di Guido', Latium, central Italy).

	Males	Females	Juveniles
Hibernaculum A (n = 4)	108	124; 125; 129	****
Hibernaculum B (n = 3)	****	131; 122 128	****
Hibernaculum C (n = 6)	120	125; 129	64; 66; 66
Hibernaculum D (n = 3)	Not measurable	Not measurable	****

Table 2. Body size (SVL, mm) of the various specimens of *Chalcides chalcides* at the study area ('Malagrotta-Castel di Guido', Latium, central Italy), divided by hibernaculum. Note that the specimens from hibernaculum D were not measured as they were seriously damaged by the excavating operations. Their sex was, however, identified.

REFERENCES

- Corti, C. & Lo Cascio, P. (2002). *The Lizards of Italy and adjacent areas*. Frankfurt am Main: Edition Chimaira.
- Filippi, E. (2000). Studio dell'impatto sulla fauna dell'impianto di termovalorizzazione dell'AMA s.p.a. in tre aree del comune di Roma. Rome: Unpublished report to AMA s.p.a.
- Rugiero, L. (1997). On the ecology and phenology of *Chalcides chalcides* (Linnaeus, 1758) in Central Italy. *Herpetozoa* 10, 81-84.
- Tomaselli, R., Balduzzi, A. & Filipello, S. (1973). *Carta bioclimatica d'Italia*. Collana Verde 33. Rome: Ministero Agricoltura e Foreste.

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