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NOTES ON THE FOOD OF CYCHRINI (COLEOPTERA: CARABIDAE)

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In this paper, the food of nineteen species of Cychrini is given, for three genera: *Cychrus*, *Scaphinotus* and *Sphaeroderus*. The beetles of this tribe seem to be nearly exclusively carnivorous, feeding principally on snails and slugs, exceptionally on insects and vegetable matter. The head is narrow and prolonged; the mandibles are elongate and prominent, with two acute median teeth in outer half, apparently well adapted for entering the opening of a snail shell. The beetles may be useful in keeping down harmful molluscs.

The purpose of this study was to compile a list of data on the food of some Cychrini, from the literature and observations in the field. Almost all species live in forest country and appear to be nocturnal. *Cychrus caraboides* Linné, *Cychrus dufouri* Chaudoir, *Scaphinotus bilobus* Say and *Sphaeroderus lecontei* Dejean have been noted searching for food on rainy days.

SPECIES ACCOUNTS

Cychrus sp. Snails, France (Jeannel, 1941; Grassé, Poisson and Tuzet, 1961; Colas, 1962).

Cychrus attenuatus Fabricius. Fly mites, Germany. This species is attracted to various baits (Nüssler and Grämer, 1966).

Cychrus caraboides Linné (*rostratus* Fabricius). Snails, Denmark, England, France and Germany (Fowler and Donisthorpe, 1913; Blunck, 1925; Burmeister, 1939; West, 1942; Auber, 1951; Nüssler and Grämer, 1966). According to the last authors, the species is attracted to various baits.

Cychrus dufouri Chaudoir. Snails, France (Jeannel, 1941).

Cychrus morawitzi Géhin. Snail (*Gonyodiscus pauper* Gould), Japan (Bates, 1883).

Scaphinotus sp. Snails, U.S.A. (Dillon and Dillon, 1961). Slugs, U.S.A. (Essig, 1926).

Scaphinotus andrewsi Harris. Catbriar (*Smilax*) berries, U.S.A. (Beutenmuller, 1918).

Scaphinotus angustatus Harris. Repeatedly collected in bait traps with fruit and honey, Canada (Lindroth, 1961).

Scaphinotus angusticollis Mannerheim. Slugs, Canada (Fletcher, 1901).

Scaphinotus bilobus Say. Snails, Canada (J.-C. Aubé, J.-P. Laplante and A. Larochelle, personal communication and unpublished data).

Scaphinotus elevatus Fabricius. Snails, U.S.A. (Dillon and Dillon, 1961). Caterpillars, U.S.A. (Collins, 1926). Maggots, U.S.A. (Weeks, 1914). Sugar drippings, U.S.A. (Weeks, 1914).

Scaphinotus guyoti Leconte. Snails, U.S.A. (Barr, 1969).

Scaphinotus interruptus Ménétries. Slugs and snails, U.S.A. (Ingram, 1946).

Scaphinotus marginatus Fischer. Slugs, Canada (Fletcher, 1901). Eggs of Diptera, U.S.A. (Stage and Yates, 1939).

- Scaphinotus punctatus* Leconte. Molluscs, insects and berries, U.S.A. (Noonan, 1967).
- Scaphinotus ridingsi* Bland. Snails, U.S.A. (Leng, 1917).
- Scaphinotus unicolor* Fabricius. White grubs of the May Beetle, U.S.A. (Fattig, 1949).
- Scaphinotus viduus* Dejean. Snails, Canada and U.S.A. (Schaupp, 1878a; Fyles, 1901; R. T. Bell and J.-P. Laplante, personal communication). Slugs, Canada (Fyles, 1901). The species was caught at sugar (Shoemaker, 1919).
- Sphaeroderus* sp. Slugs and other molluscs (Chagnon and Robert, 1962).
- Sphaeroderus canadensis* Chaudoir. Snails, Canada and U.S.A. (Schaupp, 1878a; H. Goulet, personal communication).
- Sphaeroderus lecontei* Dejean. Snails, Canada and U.S.A. (Schaupp, 1878a; Lindroth, 1955 and 1961; H. Goulet and A. Larochelle, personal communication and unpublished data). Slug, Canada (A. Larochelle, unpublished data). Larva, U.S.A. (Schaupp, 1878b).
- Sphaeroderus nitidicollis* Chevrolat. Snail, Canada (A. Larochelle, unpublished data).
- Sphaeroderus nitidicollis brevoorti* Leconte. Snails, Canada and U.S.A. (R. T. Bell and H. Goulet, personal communication).

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