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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 Snails, Canada (J.-C. Aubé, J.-P. Laplante and A. Larochelle, personal communication and unpublished data).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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LITERATURE CITED

- Auber, L. 1951. Atlas des Coléoptères de France. N. Boubée et Cie, 9 (1):1-84.
- Barr, T.C., Jr. 1969. Evolution of the (Coleoptera) Carabidae in the Southern Appalachians. Virginia Polytechnic Institute, Blacksburg, 1:67-92.
- Bates, H.W. 1883. Supplement of the Geodephagous Coleoptera of Japan, chiefly from the collection of Mr. George Lewis, made during his second visit, from February, 1880, to September, 1881. Trans. Entomol. Soc. London, 1883:205-290.
- Beutenmuller, W. 1918. Notes on the *Cychrus* found in the Black Mountains, North Carolina. Bull. Brooklyn Entomol. Soc., 13:89-90.
- Blunck, H. 1925. Syllabus der Insektenbiologie. Coleopteren. Berlin, 1:1-136.
- Burmeister, F. 1939. Biologie, Ökologie und Verbreitung der europäischen Käfer auf systematischer Grundlage. Krefeld, 1:1-307.
- Chagnon, G. and A. Robert. 1962. Principaux Coléoptères de la province de Québec. Presses de l'Université de Montréal, Montréal. 440pp.
- Colas, G. 1962. Guide de l'entomologiste. N. Boubée et Cie, Paris, 314pp.
- Collins, C.W. 1926. Observations on a recurring outbreak of *Heterocampa guttivitta* Walker and natural enemies controlling it. Journ. Agric. Res., 32 (7):689-699.
- Dillon, E. and L. Dillon. 1961. A manual of common beetles of eastern North America. Row, Peterson and Co., Evanston, Ill. 884pp.
- Essig, E.O. 1926. Insects of western North America. The Macmillan Co., New York, 1035pp.
- Fattig, P.W. 1949. The Carabidae or ground beetles of Georgia. Emory Univ. Mus. Bull., 7:1-62.
- Fletcher, J. 1901. Entomological Record, 1901. Thirty-Second Annual Report of Entomol. Soc. Ontario, 19:99-109.

- Fowler, W.W. and H. Donisthorpe. 1913. The Coleoptera of the British Islands. London, 6:1-529.
- Fyles, T.W. 1901. Crickets. Thirty-Second Ann. Rept. Entomol. Soc. Ont., 19:90-94.
- Grassé, P.P., R.A. Poisson., and O. Tuzet. 1961. Zoologie. Invertébrés. Masson et Cie, Paris. 695pp.
- Ingram, W.M. 1946. Mollusk food of the beetle, *Scaphinotus interruptus* (Mén.). Bull. Soc. Calif. Acad. Sci., 45 (1):34-36.
- Jeannel, R. 1941. Coléoptères carabiques. Faune de France, Paris. 571pp.
- Leng, C.W. 1917. A new variety of *Scaphinotus*. Journ. N.Y. Entomol. Soc., 25:34-36.
- Lindroth, C.H. 1955. The carabid beetles of Newfoundland. Opusc. Entomol., Suppl., 12:1-160.
- Lindroth, C.H. 1961. The ground beetles of Canada and Alaska. Opusc. Entomol., Suppl., 20:1-200.
- Noonan, G.R. 1967. Observations on the ecology and feeding habits of adult *Scaphinotus punctatus* Leconte (Coleoptera: Carabidae.) Pan-Pacific Entomol., 43 (1):21-23.
- Nüssler, H. and R. Grämer. 1966. Die Carabidae Mittel-und Ostsachsens. Faunistische Abhandlungen, Dresden, 7 (28):295-335.
- Schaupp, F.G. 1878a. (No title). Bull. Brooklyn Entomol. Soc., 3:20.
- 1878b. On raising Coleoptera in captivity. Bull. Brooklyn Entomol. Soc., 5:35-36.
- Shoemaker, W. 1919. Proceedings of the Society. Journ. N.Y. Entomol. Soc., 27:344-349.
- Stages, H.H. and W.W. Yates. 1939. Ground beetles predatory on the eggs of *Aedes* mosquitoes. Proc. Entomol. Soc. Wash., 41:6.
- Weeks, A.C. 1914. Proceedings of the Society. Bull. Brooklyn Entomol. Soc., 9:106-109.
- West, A. 1942. Fortegnelse over Danmarks Biller. Entomol. Medd., Copenhagen, 21:1-664.