Sarcophaga (Acridiophaga) falciformis Ald. Plagiprospherysa parvipalpis (Wlp.) Sarcophaga (Boettcheria) cimbicis (Tns.) Sarcophaga (Boettcheria) latisterna (Park.) Tachinomyia apicata Cn. Tachinomyia nigricans Webb. Sarcophaga (Fletcherimyia) fletcheri Ald. Sarcophaga (Kellymyia) kellyi Ald. Sarcophaga (Protodexia) hunteri Hough. Tachinomyia variata Cn. Goniinae Achaetoneura frenchii (Will.) Aplomya theclarum (Scudd.) Belvosia canadensis Cn. Sarcophaga (Sapromyia) cooleyi Park. Sarcophaga (Sarcophaga) exuberans Pand.
Sarcophaga (Sarcophaga) nearctica Park.
Sarcophaga (Sarcotachinella) sinuata Mg. Carcelia reclinata (A. & W.) Cyzenis festinans (A. & W.) Dolichotarsus griseus Brks. Euexorista futilis (O.S.) Sarcophaga (Tephromyiella) atlantis Ald. Sarcophaga (Thelylepticocnema) incurva Ald. Eufrontina spectabilis (Ald.) Miltogramminae Eumea caesar (Ald.) Euhilarella fulvicornis (Coq.) Euhilarella pilosifrons (Allen) Gonia (Knabia) frontosa (Say) Huebneria imitator (Sell.) Leschenaultia (Rileymyia) americana B. & B. Euselenomyia trilineata (Wln.) Metopia leucocephala Rossi Lydella niorita (Tns.) Parametopia lateralis (Macq.) Madremyia saundersii (Will.) Nemorilla pyste (Wlk.) Taxigramma heteroneura (Mg.) Cuterebridae Phryxe pecosensis (Tns.) Pseudoperichaeta erecta (Coq.) Winthemia militaris (Wlsh.) Cuterebra tenebrosa Coq. Larvaevoridae Winthemia rufonotata (Big.) Phasiinae Larvaevorinae Cylindromyia californica Big. Gymnoclytia occidentale Tns. Archytas (Nemochaeta) lateralis (Macq.) Argentoepalpus rufipes Brks. Hemyda aurata Desv. Argentoepalpus signiferus (Wlk.) Leucostoma (Paradionaea) atra Tns. Bombyliomyia flavipalpia (Macq.) Neocyptera dosiades (Wlk.) Cuphocera (Deopalpus) contigua Rnh. Ernestia (Pseudomeriania) nigrocornes (Toth.) Paraphasia nigra Brks. Rhodogyne filiola (Lw.) Eulasiona nigra Cn. Sciasma nebulosa Coq. Eutrichogena polita Brks. Fabriciella (Fabriciodes) polisa Toth. Dexiinae Mochlosoma validum B. & B.? Ptilodexia neotibialis (West) Fabriciella (Metapotachina) brevirostris Toth. Fabriciella (Metapotachina) latifacies Toth. Fabriciella (Nowickia) hispida Toth. Rhamphinina confusa West Trochilodes skinneria Coq. Fabriciella (Rhachogaster) algens (Wd.) Fabriciella (Upodemocera) nitida (Wlp.) Phoroceratinae Admontia (Xenadmontia) degeeroides (Coq.) Bessa harveyi (Tns.) Lypha sp. Mericia nigropalpis (Toth.) Crocuta sp. (=Siphona auctt.) Metopomuscopteryx tibialis (Coq.) Cryptomeigenia nigripilosa Cn. Neothelaira chaetoneura (Coq.) Pararchytas decisa (Wlk.) Peleteria (Peleteriopsis) iterans (Wlk.) Dexodes nana Cn Exorista mella (Wlk.) Peleteria (Sphyromyia) apicalis (Wlk.) Peleteria (Sphyromyia) bryanti Cn. Homalactia harringtoni (Coq.) Lasioneura bicolor (Cn.) Patelloa pachypyga (A. & W.) Patelloa reinhardi (A. & W.) Peleteria (Sphyromyia) malleola Big. Siphophyto neomexicana Tns. Wagneria helyma (Wlk.)

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## Scavengers and Parasites from a Used Wasps' Nest

In October 1955 Professor Kenneth Graham brought in from Langley an unusually large wasps' nest of the current season's making and kept it in a glass chamber. The nest was deserted so it was not possible to determine which species of vellow jacket constructed it; it was probably

Phylacteropoda sp.

Vespula arenaria (Fab.), a common wasp at the coast.

During the autumn months some eight recognizable specimens of what was apparently Ephestia elutella (Hubner) and some small ichneumon flies emerged and died in the container. These were given to me by

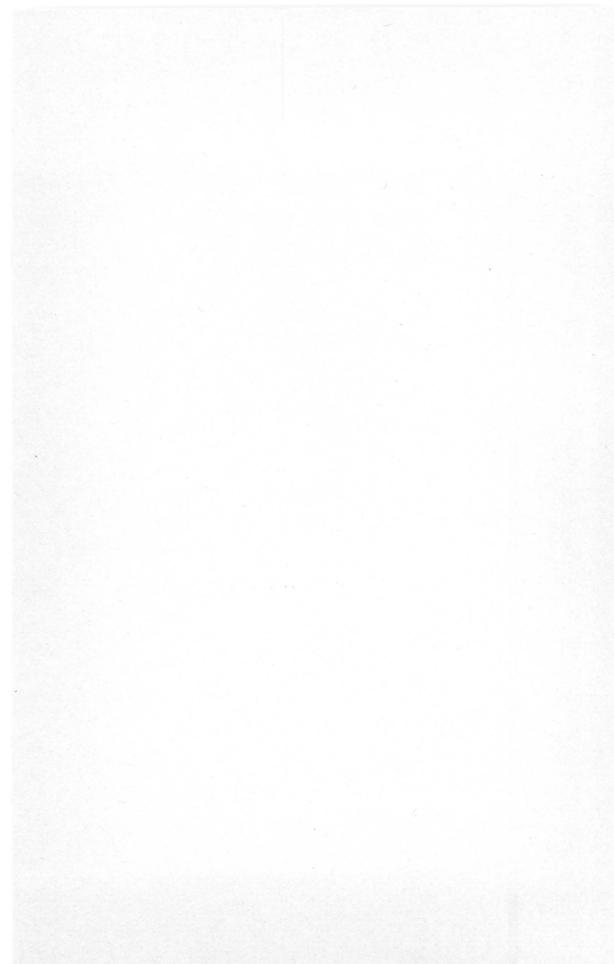
Professor Graham the following spring. Unforunately, Professor Graham needed this unusually large wasp nest for demonstration purposes, so I could not cut it up to determine the true status of the hymenopterans.

The small ichneumons were either parasitic upon the moth caterpillars or were Sphecophaga burra (Cresson), a parasite of wasp larvae. This insect, when it pupates spins across the wasp cell a silken sheet coloured like a poached egg with a brown instead of a yellow centre. The sheet is always slightly oblique and not straight across a cell.

From a small Vespula nest taken in the forest at 3100 ft. above Kamloops, I once obtained a number of small caterpillars which died without pupating. By cutting up the nest it was found that the larvae had

acted as scavengers, feeding on the deposit of wasp larval frass that is always plastered against the base of each cell when the insect pupates. This deposit may be from one to three layers deep, depending upon how many larvae were reared in each cell, and is also fed upon by scavenging larvae of both the black carpet beetle and a dermestid, Perimegatoma vespulae Milliron, that develops in both animal and plant remains.

I have found that moths invade wasps' nests late in the season and develop in the upper, that is, the older comb layers. The ichneumon parasites usually develop in weak colonies; or if in strong colonies, only at the end of the season when the wasp population is declining. Neither moth larvae nor ichneumons seem to be interfered with by wasps.—G. J. Stencer, University of British Columbia.



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