Walker, E. M. 1927. The Odonata of the Canadian Cordillera. Prov. Mus. of Natural

History, Victoria, B.C.
Walker, E. M. and Ricker, W. E. 1938.
Notes on Odonata from the Vicinity of Cultus Lake, B.C. Can. Ent. 70.
Whitehouse, F. C. 1948. Catalogue of the Odonata of Canada, Newfoundland and

Alaska. Trans. Royal Cdn. Inst., 27, No.

Wagner, J. 1936. The Fleas of British Columbia. Can. Ent. 68 (9).

1940. Beitrag Zur Kenntnis der Flohe von Brit. Kolumbien, Zeitschrift fur Parasitenkunde, 11 (4).

AN ANNOTATED LIST OF TRICHOPTERA COLLECTED ON SOUTHERN VANCOUVER ISLAND

F. SCHMID

Museum of Zoology, Lausanne (Switzerland)

RICHARD GUPPY Wellington, B.C.

Although Trichoptera have been the object of considerable study, those of North America are not very well known. Faunistic data, in particular, are often lacking and many described species are unknown except for the type series.

In the hope of contributing a little to the knowledge of these insects we offer the following list of species collected on Southern Vancouver Island, B.C. These specimens were taken, over a period of three years, by the junior author. Where no other indication is given, the specimens were usually taken around the house and grounds, at lights, or by beating foliage. Many, however, were captured near streams or other bodies of water, which were evidently their natural habitat. As some of these places have no names we have adopted the following system of numbering.

(3) Small moderately rapid stream, permanent water, very shaded by bushes, at sea level.

(4) Nearly the same as (3), but often dry in late summer.

(6) Small rapid stream, with still pool, very clear, gravelly bottom, permanent water.

(7) More rapid than (6). Most collecting on this stream was carried out along a stretch running over a shelf of solid rock, with many small "pot holes" created by erosion.

(10) Small shallow muddy pools at about 900 feet elevation, thickly grown with sedges, always dry in summer.

(11) Very small stream falling over steep rock cliff. Water seems to be permanent, though very low in sum-

For other streams along which some collecting was done, we have used the names found on maps of the district

RHYACOPHILIDAE

Rhyacophila angelita Bks. Fairly common in July. Wellington (4), Nanaimo, Chase R., Englishman R. Falls, Aug. 26, 1950.

R. grandis Bks. Very common, June to Oct. Wellington (3, 4, 7), Nanaimo, Chase R. and Millstone R.

R. norcuta Ross. Common. Forbidden Plateau, Aug., Englishman R. Falls, Aug. 26, 1950. Wellington (7), June and Oct. R. oreta Ross. Common. Wellington (7), Mt. Benson, Sept. 19, 1950, Englishman R. Falls Aug. 26, 1050

Falls, Aug. 26, 1950. Englishman R. Falls, Aug. 26, 1950.

R. vaccua Milne. Very common, July to Oct. Wellington (6, 7), Englishman R. Falls, Nanaimo, Chase R, Nanoose Creek, Nanoose Bay, Mt. Benson.

R. vaefes Milne. Wellington (7), June 15, 1950, 288.

1930, 28 8.

R. verrula Milne. Common. Wellington (6, 7, 11), June and Oct., Englishman R. Falls, Aug. 26, 1950.

R. vuzana Milne. Fairly common, July and Aug. Wellington (4, 11), Nanaimo, Chase R., Englishman R. Falls.

Classicoma benitum Rks. Wellington (3, 11)

Glossosoma penitum Bks. Wellington (3, 11), June 13, 1950, 23 & and 29 9.

Palaeagapetus guppyi Schm. Mt. Benson,
Aug. 19, 1949, 18.

PHILOPOTAMIDAE

Dolophilodes pallidipes (Bks.). Mt. Cokely (Arrowsmith) Aug. 10, 1948, 18. Forbidden Plateau, Aug. 1950, 18 and 19.

D. dorcus (Ross). Wellington (10), July 27, 1950, 1 $\ \ \, \ \,$ and 1 $\ \ \, \ \,$

Wormaldia gabriella Bks. Very common. Nanaimo, Chase R. and Millstone R., Sept.-Oct. 1950.

PSYCHOMYIIDAE

Polycentropus variegatus Bks. Wellington (4), June 30, 1949 and July 4, 1950, also occa-sional specimens late July through Sept.

P. flavus Bks. Forbidden Plateau, Aug., 1950, 488.

P. interruptus Bks. Very common. Wellington, July-Aug.

remotus Bks. Forbidden Plateau, Aug. 1950, 288 and 299.

LEPTOCERIDAE

Triaenodes baris Ross. Wellington, July 21, 1949, July 27, 1950.

Mystacides alasimbriata H-Gr. Forbidden Plateau, very common, Aug. 1950.

LIMNEPHILIDAE

Colpotaulius secludens Bks. Wellington, Aug. 1, 1948, 19.

Grammataulius betteni Griff. Wellington, occasional in Sept. and early Oct.

Limnephilus externus Hag. Fairly common, Wellington (11), Sept. 28, 1950, and at light mid July through Sept. L. fuscoradiatus Schm. Forbidden Plateau,

Aug., 1950, 18 and 19.

L. harrimani Bks. Very common, Wellington, Aug.-Sept.

L. insularis Schm. Wellington, Sept. 28, 1948, 13; Sept. 23, 1949, 13.
L. indivisus Walk. Wellington, June 25, 1948,

18; Sept. 10, 1948, 18.

L. lopho Ross. Forbidden Plateau, Aug., 1950, 18 and 19.

L. nogus Ross. Wellington, extremely abundant during Sept. and Oct. Coloration of this species is rather variable.

L. sericeus (Say). Wellington, fairly common in late Sept.

L. sitchensis Kol. Wellington, very common This species also is very July to Sept. variable in coloration.

L. occidentalis Bks. Wellington, rather scarce, Sept.-Nov., one specimen, June 21.

Lenarchus vastus Hag. Wellington, very com-mon Aug. to Oct. Nearly all specimens were taken at light, hence are mostly Their breeding haunts were not females. discovered.

L. rho Milne. Wellington, rather rare, July to Sept. Ten specimens emerged from

larvae taken from pool (10). L. cinnamoneus (Schm.). Wellington, Aug. 12, 1948, 13.

Halesochila taylori Bks. Said to be rare, this species was common at Wellington in 1950, coming frequently to light during September and October. A short visit to a muddy lake in October netted about a dozen specimens. Some were bred from larvae taken from this lake, and from the partly caved-in well of the abandoned whaling station at Hammond Bay. The species evidently requires deep, still, permanent water, with abundant aquatic vegetation.

Clistoronia magnifica Bks. Wellington, Sept. 12, 1950, 18; Mt. Benson, June 11, 1950, The natural habitat appears to be mountain lakes. On the Forbidden Plateau the species is very conspicuous during August, large numbers being on the wing

each evening at dusk.

Clostoeca disjuncta Bks. Not common, Wellington May 11, 1949 and June 17, 1950; Mt. Benson July 5, 1949, 1 8. Chyranda centralis Bks. Fairly common, For-

bidden Plateau, Aug.

Hesperophylax designatus Walk. Wellington. Sept. 17-20, 1950, 29 9. Forbidden Plateau

Aug., fairly common.

H. occidentalis Bks. Not common. Wellington, June 15, 1950, 18, also from (4) Sept.-

Oct., 1948; Mt. Benson, June 11, 1950, 19.
Glyphopsyche irrorata Fabr. Fairly common,
Wellington, March, April and early May.
Goldstream, April 2, 1950, 19.

Psychoglypha ulla (Milne). Very common, Wellington Sept.-Oct. and March-April.

Reared from (3).

holla (Bks.). This species is difficult to P. bella (Bks.). collect; it is reluctant to take wing, stays close to its breeding haunts, and never comes to light. Specimens were reared from larvae taken from (6) (emergence date Nov. 9, 1948), and from French Creek (emerged Oct. 17, 1949). Adults were collected at (7) Aug 21, 1949, and Nanoose Creek, Oct. 19, 1949. Larvae were found in still, clear, gravelly pools, when the streams were low in summer.

P. alascensis Bks. Wellington, fairly common in Oct. in Oct. Two specimens emerged from French Creek, larvae along with the P.

bella specimen above. Neophylax rickeri Milne. Common, Wellington, Nanaimo, Chase R., Nanoose Creek, Sept.-Nov.

Wellington (7), Ecclisomyia conspersa Bks. common in May; Forbidden Plateau Aug. 1950, 2♀♀.

Cryptochia pilosa Bks. Wellington (3), June Apatania sorex Ross. Wellington, June 8. 1950, 19.

Dicosmoecus gilvipes (Hag.). Wellington (7) and Millstone R. Oct. 12, 1949, 688; Nanaimo, Oct. 8-15, 1949, and Sept. 26,

D. nigrescens Bks. Wellington, Sept. 14, 1950, 18 at light, (11) Oct. 13, 1950, 19.

. tristis Bks. Wellington, Millstone R., Englishman R., French Creek, Nanaimo, Chase R., Common, late Aug.-Oct., close to large permanent streams, never taken elsewhere.

LEPIDOSTOMATIDAE

Lepidostoma cascadensis (Milne). Wellington, June 15, 1950, 18.

boodi Ross. Wellington, Aug. 24, 1949,

288.

L. jewetti Ross. Wellington, Aug. and Sept., not rare; Nanaimo, Millstone R., Sept. 26, 1950. Englishman R., Aug. 1, 1950.

L. quercina Ross. Wellington, June 4, 1949, 18.

L. roafi (Milne). Very common in Sept., Wellington, Nanaimo, Millstone R.

L. rhino Ross. Wellington, July 10, 1950, 1 &. L. strophis Ross. Wellington, Sept. 17, 1949,

L. unicolor (Bks.). Wellington, fairly common in Aug. and Sept.