## Non-segmented Tapeworms of Western Suckers John S. Mackiewicz State University of New York at Albany Project Number 134

The purpose of this study was to recollect the non-segmented tapeworms (Caryophyllidea:Cestoidea) reported by Linton (1893, Report U.S. Comm. of Fish and Fisheries for 1889 to 1891; 545-564) from Catostomus sp. in Yellowstone Park, and Bangham (1951, Zoologica 36:213-217) Catostomus fecundus and Gila atraria in the upper Snake River drainage. Since there is some question concerning the taxonomic status of these tapeworms new collections were desirable.

From the Snake River adjacent to the Station, and in Fish Creek at Wilson and from Two Ocean Lake the following fish were collected and examined:

Catosiomus ardens Jordan and Gilbert (Utah sucker)	Exam.	Inf.
Gila atraria (Girard) (Utah chub)	25	4
Totals	60	26

There is some question concerning the specific identification of the sucker, however, ardens appears to be the most reasonable determination at present. According to Dr. Baxter (Comm. September 17, 1965) all Catostomus in Jackson Hole should be this species.

Preliminary analysis of unstained material reveals three cestode species.

Caryphyllaeus terebrans (Linton)	Host
Hunterella nodulosa Mackiewicz and McCrea	sucker
Hypocaryophyllaeus gilae Fischthal	chub

- <u>C. terebrans</u>, originally described from Yellowstone, was found in fish from the three localities but was especially abundant in those from Two Ocean Lake where one fish contained an estimated 200 large worms. This species, the only North American <u>Caryophyllaeus</u> described, is badly in need of restudy both from the taxonomic and morphological aspects. This collection is therefore especially valuable.
- H. nodulosa was described from C. commersoni in New York but had originally been confused with the larval stage of C. terebrans by Linton. This collection now confirms the separate status of <u>Hunterella</u> and provides abundant material for studies on pathology and on intraspecific variation.
- H. gilae was first collected by Bangham who misidentified it as Glaridacris larvei. Fischthal (1953, Proc. Helm. Soc. Wash. 20:113-117) later described the species using Bangham's original material that came in part from Two Ocean Lake. Since this species is rare in collections and is unusual in having a Cyprinid host, I was particularly pleased to get sufficient material to make observations on variation.

All but two of the five caryophyllaeids reported from the Jackson-Yellowstone area were collected. The "cestodarian" from <u>Richardsonius balteatus</u> and "2nd spp." from <u>G. atraria</u> (Bangham, 1951) were not found. Though the present survey was not extensive the data indicate that caryophyllaeid cestodes form an important part of

the helminth fauna of the Utah Sucker and less so the Utah Chub. Future investigations should be directed toward other hosts such as the Mountain sucker (Pantosteus) and Long-nose sucker (C. catostomus). Also, exceedingly valuable information on speciation and distribution of caryophyllaeids can be gained by studying those from suckers in the headwaters of rivers on each side of the Divide.

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