

Junius Henderson
Field Notebook

No. 6

July 20, 1911 -

July 20, 1914

Also: Several
pages of riveted
typed notes

Lyons, Colo.

Oreohelix haydeni betheli P. & C.
U. of C. No. 3917.

Cliff of Lyons sandstone, on
road S. of Meadow Park, just S. of
roundhouse, north slope, July 4,
1912. 20 or 30 in space of ~~inches~~
15 x 20 ft., in bunch grass.

O. hendersoni - W. slope Niobrara ridge, Little
Thompson, 5 mi. N.E. of Lyons.

Bear Lake District, Utah-Idaho.

Bear Lake, length, 19 mi.

Greatest width 8 mi.

Average " 6 "

Greatest depth 175 ft.

Average " 40-60 ft.

Laketown at S. end of lake.

Bear River range separates Bear
Lake Valley from Cache and
Gentile Valleys.

Gentile Valley N. of Cache Valley,
A 12-mile canyon of Bear River
with limestones at each end,
connects the two valleys.

Just above the "Gates" greenish
S.S. with white and brown l.s.
contains fresh-water shells
and Helix

Mendon fresh-water shells and Helix
like living species.

Hayden, 11th Annual.

Ogden District.

Hemphill, Binney's 2nd Suppl.
"I commenced collecting at or near Ogden, Utah, and almost the first shell I picked up was the variety I call Wasatchensis. (see p. 34)
This pretty and interesting shell I found among quartzite boulders, in crevices sufficiently large to afford cool and moist retreats during the active summer season, and safe places for hibernating during the cold months. This shell seems to be confined in its range to a very limited area, for I did not find a single specimen either dead or living outside of a little plat containing an acre of ground. I have often admired this shell, and think it one of the most interesting varieties I found in Utah, as it combines the characters of Idahoensis, Haydeni and Hemphilli, as well as of cooperi. Not only on this account is it interesting, but because it is found living on or near the dividing line between the Idahoensis group and the Haydeni group (that is, the transversely ribbed and longitudinally ribbed groups). North of Ogden you will see I found all the transverse-ribbed varieties, and south of Ogden all the longitudinal ribbed varieties were found, with the ex-

Ogden--continued.

ception of the variety of *strigosa* just assuming the *haydeni* sculpturing (near Logan). Not a single transversely ribbed specimen occurred south of Ogden. Whether this is merely accidental, or whether there are some local causes on either side of this line which influence this change in sculpturing, I cannot say. I only point to the fact, and that it seems a little strange that *wasatchensis* should be found just on this line.

In the gulches near Ogden, and also on the mountain slopes ~~among~~ among ~~the~~ rocks and leaves, I found the typical *strigosa* and *cooperi*, as well as a number of small shells."

"Returning to Ogden, I explored the mountains farther to the north than on my first visit, which resulted in finding the variety I have called *newcombi*. (see p 32). This colony I found living among bushes on the steep sides of a gulch facing the north, a spot of continual shade. The specimens, both banded and plain, were quite numerous; but beyond the space of about fifty yards not an individual could be found either above or below. I also found on a rocky point two or three specimens of *haydeni*, nearer Ogden, on the north side of the city.

Ogden--continued.

O. newcombi "has numerous separated, rough, heavy, transverse ribs (forty-four on the first whorl of one individual) and two widely separated, revolving bands of color. It varies, as usual in the group, in size and globosness. Some want the revolving band."

Pl. II, f. 8, shows a shell with shell much like *peripherica*, but ribs much farther apart, as well as the color bands farther apart.

Salt Lake District.

"From Ogden I went to Salt Lake, ^{city} and thoroughly explored all the canyons, gulches, and other favorable places which I could reach in a day's walk. This only resulted in the finding of the typical strigosa and cooperi, both large and small."

Provo.

"I next went to Provo, Utah, fifty miles south on the same range of mountains, and there also I found only the typical strigosa and cooperi, large and small."

~~Salt Lake District~~

Oquirrh~~mountain~~ Mt. region.

"I then returned to Salt Lake City, and crossed the valley to the west, camping on the west side of a range called the Oquirrh Mountains. Here commenced a series of finds that was quite exciting and very interesting to me. At the foot of the mountain my attention was attracted to a pile of detached rock, usually a good place for snails. After a few moments work among these stones I was rewarded by finding quite a number of specimens of the variety I call Utahensis. (See p. 33). This has the form of hemphilli but it destitute of the revolving ridges of haydeni. The specimens were all constant in sculpturing, but varied very much in size and somewhat in form. I next went up the side of the mountain a short distance to another pile of stones (limestone), and here I found the variety I call oquirrhensis. (See p. 34). This has quite prominent revolving ribs, more developed than in the typical hemphilli from White Pine, Nevada. This colony was also constant in sculpturing, but varied very much in size, and also in form. I next went along the mountain side, and crossed a little ra~~ve~~ine, and commenced raking among the leaves and brush on the steep slope of the

Oquirrh Mts. Continued.

mountain. Here I found a colony of the typical haydeni, constant in sculpturing, but as in the case of the other colonies, variable in size and form. Following up this ravine to near the summit of the mountain, I found a few isolated specimens of haydeni under stones. Near the summit I found two specimens of cooperi. I then returned to the bushes where I found haydeni and after some further work there passed along the side of the mountain a very short distance to ~~another~~ another ravine with low bushes covering its sides. Here among the leaves I found a colony of the variety I call gabbiana. (see p.34) This is a coarse, rough haydeni, with the revolving ribs nearly or quite obsolete. This variety also maintained its peculiar sculpturing but varied again in size and form. Continuing my course along the mountain side, I came to another ravine which I followed up a short distance to a perpendicular precipice about fifty feet high, barring ~~precipice about fifty feet high, barring~~ precipice, about fifty feet high, barring farther progress. At the foot of this limestone wall I found another colony of one of the smaller forms, elevated like cooperi, with the revolving lines nearly obsolete. Here, then, were five

Oquirrh Mts. continued.

Colonies of the same species, apparently, living on the same mountain slope, within a short distance one of the other, each colony maintaining its peculiar sculpturing, but varying in size and form."

Brigham City.

"From Ogden I went to Brigham City, and quite thoroughly explored all that vicinity. Here I found a colony of the small albino strigosa with and without the tooth on the peristome. This colony occupied a pile of rocks at the foot of the mountain, shaded by bushes, dead leaves, and the debris washed down the mountain. I did not find find this variety elsewhere, nor was a single banded specimen found among them. The typical and also ^{albino} of strigosa and cooperi occurred in this vicinity."

Hemphill later (Naut., IV, 16, 1890) described rugosa from "near Brigham City."

Cache-wheeld, District.

"I continued my course northward from Brigham City, pitching my tent on the banks of the Bear River. The valley here was considerably broken by the mountain spurs, through one of which the river had cut its way, leaving high rocky cliffs on either side, with scattered clumps of bushes along the river and on the edges of the bluffs. Everything seemed favorable here to the existence of snails. My first find was near the edge of the bluff, in cattle tracks and small shady holes in the ground, of the white variety I call binnevi. (See p. 29) These were all plain white. They were quite plentiful just on the brow of the bluff and the slope towards the river. The next I found was in a clump of bushes among leaves and brush. These I have called variety albofasciata. (See p. 32) The body of the shell is clouded, with the broad, revolving white band at the periphery. Some of this variety are beautifully clouded beneath. None in these bushes were white.

"I next went up to the rocky cliffs about three miles from my camp, and here among the bushes I found the plain white varieties, binnevi, with and without the denticle on the peristome. I worked

Cache-Wheelon--Continued.

my way among the bushes and rocks to the foot of the cliffs, and here on a mossy, grassy slope, directly at the foot of a high cliff, I found a colony of the ribbed variety castaneus. (See p. 32) This spot is continually shaded by the ~~high~~ tall cliff, the sun never shining on it. Most of this colony are faintly marked with the broad white band of albofasciata, but a few are plain chestnut-colored. I next crossed a small ravine to another cliff, where a patch of wild rye was growing very luxuriantly. It was about fifty feet square, directly beneath a little gully in the cliff above, where the melting snows of springs and heavy summer rains formed a little rivulet, pouring over the cliff and irrigating the rye. In this patch I found a very prolific colony of the small interesting variety I have called gouldi. (See p. 32) So plentiful were they, that I picked up by actual count one thousand in about two hours. No large specimens were associated with them, while the little fellows strayed but a short distance from the rye. No typical strigosa were found in this vicinity. All were ribbed.

Logan, Utah.

From here I went to Logan, Utah, where I found the variety with microscopic revolving ribs, beginning of haydeni, among stones at the head of a gulch quite high on the mountains. The typical strigosa and cooperi were found here also."

Hemphill afterwards (Naut, IV, p. 17, 1890) described this form under the name hybrida, and from "near Logan" also described albida, with numerous microscopic revolving striae, and no widely-spaced riblets of the haydeni type, hence easily distinguished from hybrida.

Franklin, Idaho.

"I next went to Franklin, just across the Utah line in Idaho, where I found the thin, frail, iron-stained variety of strigosa, among red sandstones."

This is the form he afterwards (1890) described as fragilis.

The small mountain west of Franklin where we first found fragilis is likely the one pictured in Hayden's 11th Annual report as Franklin Butte.