

Junius Henderson
Field Notebook

No. 13

1931-1936

HANDY
NOTE BOOK

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James Henderson
University of Colorado
Boulder, Colorado

No. 13

1931--1936

Speedometer set back once

car has run at 13,000 - 17,000

13,000
30,000

3 New Goodyear all weather tires put
on at 13,800.

Boulder to Calif. June, 1931

Saturday June 6, 1931

Started in Dodge sedan 9:15 a.m.

Speedometer 13840 - gas tank full.

Mostly clear after 2 days rain.

Pavement to Ft. Collins ^{52 miles} - where we

ate lunch. Much oiled road from
N. of Bellvue nearly to Virginia Dale,
Laramie. Courser Hotel, Laramie, 3:45 p.m.

Gas, 2 gal. at Ft. Collins

" 4 " " Laramie

Sunday, June 7, 1931

Left Laramie at 8:30 a.m., bright
most of way. Lunch at Rawlins,
arrived at Park Hotel, Rock Springs 4:30 p.m.

Oiled road for 14 mi. out of Laramie,

+ Parko to Rawlins ~~at~~ 7 mi., then from Rawlins for 42 mi. W. except 4 mi. detour on account of fresh oil. 4 miles of oil road again E. of Rock Springs gas. Spd at Rawlins

Traveled today ^{about} 30 miles, yesterday 115.

total 345 - 180 ^{180 mi} gal oiled or paved, balance nearly all gravelled - some detours.

Has 90 gal at Rock Springs oil + gas

Rock Springs, Wyo.

Monday, June 8, 1931

Left at 8:15 a.m.

Cloudy most of day. Lunched at Evanston at noon 112 miles ^{a little rain} ~~at~~ ^{at} Echo City

Roberts Hotel, Provo, 5 p.m.

oiled road ⁽⁴⁾ four miles east of Evanston, & oiling about 10 miles more over the mountains east of that.

Oiled road from 10 mi. east of Echo City to Echo City (probably continuing to Ogden) thence 49 miles S. to junction south on Provo road; next 12 mi to junction of Provo

of Salt Lake Road now being oiled.
(road toward Salt L. city oiled - perhaps
all the way); road from junction
to Provo all oiled - about $5\frac{1}{2}$ miles.

Gas 8 gal at Evanston
oil 1 qt. " "

Drove 111 mi. this afternoon.
Total for day 223 miles.
oiled 115 miles oiled

Provo, Utah

Tuesday, June 9, 1931.

Fairly cool, partly cloudy.

Visited B. G. U. + Tanner showed us
over samples + took us to lunch.
changed oil, sparkwax -
greased " "
gas 6 gal.

Provo, Wed., June 10, 1931

Partly cloudy + cool all day. Rained
a little at intervals in afternoon

oiled + concrete road for 66.5 miles
oiled at Scipio 1 mile

" Holden to Fillmore 10 mi. + also $8\frac{1}{2}$
mi. farther south

oiled at Beaver city 1 mile
" from Parawan 9 mi. s.
all the rest to this point gravelled.
from here to Cedar city, about
10 mi., detour on account of
construction work 1 mi. paved to hotel
Drove 221 mi. today, 97 paved or oiled
Stopped at Leigh Hotel Cedar city, at
5 p. m.

Greased & changed oil at Cross, 14.420.
8 gal. gas at Fillmore.
7 " " " Cedar city

Cedar city, Utah,
Thursday, June 11, 1931.

Warm, soon getting hot.
oiled road continued to Anderson's,
at June with Lion Canyon road, 33
miles, then turned off to Lion. We
continued on gravel road for 13 mi.,
then new oil for 3 mi. & then finished
oil road to St. George ~~to~~ 4 1/2 mi.
Gravel for 12 mi., then oil to Ariz.
line 17 mi., and across corner of
Ariz. to Nevada line at Mesquite
12 mi. From Mesquite, 17.5 mi.
gravel, then very rough gravel and
construction work ^{at 14 miles}. Oil began again

and continued with smooth, hard
macadam to Las Vegas, 53 miles
stopped at ~~Overland~~ Hotel, Las
Vegas, at 3 p.m.

7 gal. gas at Mesquite.

Today about 183 miles

oil & macadam pavement 122.5'

gravel, partly loose 42.5'

short ^{leafed} construction about 15 mi.

Tree yucca & cholla just before entering
"Arizona"

Las Vegas, Nevada.

Friday, June 12, 1931.

Hot forenoon, cool afternoon crossing
mts.

Both long & short-leaved tree
yuccas about 30 mi. S.W. of
Las Vegas and again on east side
San Bernardino Mts. Many Spanish bayonet
in bloom in San Bernardino Mts.

342 mi. today - all paved

5 3/4 gal. gas, at Las Vegas

1 quart oil " " "

2 gal gas at Brown's service station

9 " " " Barstow

Barrel cactus 5-7 mi. W. of Las Vegas

Started 7:40 this morning, arrived
Stewart Hotel, San Bernardino, Calif.
4:30 p.m. Stopped several times
for photos, once for agricultural
inspection & at Pearston for lunch.

San Bernardino, Calif.

Sat., June 13, 1931.

Foggy forenoon, arrived at Coontown
Hotel, Pasadena about 9:30 ~~to~~ or 10 a.m.

6 gal. gas at San Bernardino
Reached ~~to~~ 5-2 mi. all paved
Speedometer at hotel 15117
changed oil & greased "

Pasadena, Calif.

Sat., June 20, 1931

After work at Am. agric. adv. sci., drove
at to Hobart Ave., Los Angeles, 15130.

Paved 925 mi. }

unpaved \$65-

} Total 1290 mi.

Balboa, Calif., Sat.

June 27, 1931

gas at Los Angeles 5 1/4 gal.

Drove to Balboa in morning

Has been a hot week

Wednesday
Tuesday sat. at E.P. Chasie, San
Pedro!

Thursday at W.O. Gregg, Montrose.

San Diego, Calif.,

Monday, June 29, 1931

Drove to San Diego from Balboa,
& camped at Blunt's Auto Camp,

2415 La Jolla St., North San Diego.

Collected Serpenthidae, etc. in Santa
Margarita River, about 5 mi. N. of
Oceanside. Sts 1930-1910

6 gal. gas at Encinitas.

San Diego, Calif., Tues.

July 30, 1931

Visited San Diego Museum at Balboa
Park. Saw Chas. H. Stenberg, Mr. & Mrs.
Frank Stephens & director Abbott.

San Diego, Calif., Wed.,
July 1, 1931

Drove S. on E. side of Bay

911 Sta. 1931-2. about 3 mi. N. of
National City, on beach - *Hammica?*
& *Bulla*

912 Sta. 1931-3. about 2 mi. N. of
National City, bank of slough.
Berthidea & *Melampus*.

913 Sta. 1931-4 slough at National
City, same spp.

914 Sta. 1931-5: W. side San Diego
Bay on shore, N. of Imperial Beach.

915 Sta. 1931-6 bay beach just
S. of Coronado

916 Sta. 1931-7 about 1 1/2 mi. S.
of Coronado ~~St.~~ on bay shore.

San Diego, Calif., Thurs.,
July 2, 1931.

Drove to La Jolla.

917 Sta. 1931-8, W. side False Bay,
Berthidea

918 Sta. 1931-9, near bridge across

middle of False Bay. Cerithidea - large.
Visited Chas L. Bass at
Pacific Beach.
Very hot day

San Diego, Cal., Fri.,
July 3, 1931

919 Sta. 1931-10, about 1/2 mi. up Rose
Canyon, near Pacific Beach. *Thysa* in
pool.

Balboa, Calif. Sat. & Sun.
July 4-5

920 Sta. 1931-11, Balboa Bay, various
sp. - 1 starfish. *Cerithidea* & *Melampus*
on back back bay.

Los Angeles, Thurs.

July 9, 1931.

Drove to Santa Monica, thence north
on coast highway

921 Sta. 1931-12, ~~the~~ *Mugu* Laguna,
about 20 mi. S. E. of Ventura.
Cerithidea & *Melampus*. (10 mi. S. E. of
Oxnard)

922 1931-13, Pierpont Beach, Ventura.
Norrissia, etc.

Got cabin at Walnut Camp,
Ventura, Calif.

Ventura, Calif., Friday
July 10, 1931.

Drove up Ventura River.

923 Sta. 1931-14. Planorbis, Lymnaea,
Physa succinea.

Crossed to W side of river

924 Sta. 1931-15. Physa + small
Planorbis 1.9 mi. above junction of
roads at Factor Park, which is
5 1/2 mi. above Ventura

Lagoon at mouth of Ventura River
is a stinking slough shut off from
ocean by a sand bar +
No Berithidae, etc.

Ventura, Calif., Sat.
July 11, 1931

Drove up coast.

Collected large striped beetle and
Bryozoa on kelp about 7 mi. N.W.
of Ventura.

1931-16
925 Melampus in lagoon at Carpinteria.
Got cabin at Bani's Auto Court,
W. of Santa Barbara on Highway 101.

Santa Barbara Calif. Nov.,
July 13, 1931.

Drove W. from here along coast.
926 Sta. 1931-17, Gaviota Beach, 30 mi.
W. of Santa Barbara, Armasa,
Littorina + Nuzitius?

927 Sta. 1931-18, Gaviota creek about
3 ^{1/2} mi. up, below Las Breces.
Small Physa + Pisidium

928 Sta. 1931-19, Gaviota 7 mi. N. E. of
Las Cruces, probably S. Joaquin Creek.
Physa, Dymn, small Planorbis +
one or 2 Pisidium No Joaquin Creek.

929 Sta 1931-20, pool 7 mi. W. of
Lompoc, 3 mi. E. of Surf, Lymnaea
+ Physa.

930 Sta. 1931-21, under shrubs at Surf.
Helminthoglypta.

Drove back and got a cabin at
Lompoc.

Lozapoc, Calif., Tuesday
July 14, 1931.

Drove up coast.

Examined Guadalupe Lake & some sloughs without success.

Collected a few *Macoma* at Pismo Beach.

931 Sta. - 1931-22, San Luis Obispo Creek, below S. L. Obispo. *Physa* + 2 spp. *Planorbis*.

Left main highway at San Luis Obispo.

932 Sta. 1931-23, Morro, on ocean beach a few *Macomas* & large sand dollars. Many valves of large *Tivela*.

Got a cabin at Morro.

Morro, Calif., July 15, 1931

Drove S. along east side of bay.

933 Sta. 1931-24, tide slough. *Heritidea*.

Then drove ^{E. and} S. through San Luis Obispo to Avila (Port Harford).

934 Sta. 1931-25, Avila. *Limpets*, *Littorina* starfishes etc.

Thence N. through San Luis Obispo to King City, & got cabin at Lindy Auto Court.

935 Sta. 1931-26, reservoir on W. side Salinas River 12 mi. S. of San Arroyo. Physa, Lymnaea, small Planorbis, all dead.

King City, Calif., Thurs.,

July 16, 1931.

Drove to Soledad & then 15 mi. to the right to Pinnacles Nat. Monument, 936 Sta. 1931-27. Helminthoglypta, 1 shell.

Thence back to highway & north, 937 Sta. 1931-28, pool, Salinas River at bridge about 3 miles from Salinas on road to Monterey.

Got cabin at Pacific Grove.

Pacific Grove, Calif., Friday,

July 17, 1931.

938 Sta. 1931-29, Lighthouse Point at Pacific Beach, Grove.

Grove
Pacific Beach, Calif.,
Sat., July 18, 1931

Drove to Big Sur, 37 mi. N.E. of
here, over mountain road with many
curves ^{& steep grades} part way & looked for mollusks
in Big Sur River, without success.
Crossed no streams except a couple of very
tiny rivulets.

Foggy ever since we arrived here
& cold.

Pacific Grove, Calif.,
Sun., July 19, 1931.

Foggy all day

Pac. Grove, Monday,
July 20, 1931

Drove N. through Santa Cruz to
County Big Trees Park, thence to
Los Gatos - San Jose & got cabin at
Santa Clara.

Drove down into Los Gatos canyon
to Wright's type loc. of *Lygus cooperi*
Hannibal, but found nothing.

Santa Clara, Calif., Tues.,

July 21, 1939

Crossed Guadalupe Creek in 3 places
& found no water, hence no *Gonidea*
haroldiana.

Drove to Palo Alto & got cabin at
Grove ants camp. Visited Stanford
Univ. & took Mrs. Oldroyd to dinner

Palo Alto, Calif., Wednes.,

July 22, 1939

Spent day with Oldroyd going over
mollusk collection.

Palo Alto, Calif., Thurs.,

July 23, 1939

Drove across bay on Dumbarton Bridge.
939 Sta. 1931-30, & slough along causeway
before reaching the Dumbarton Bridge, on
muddy bank, *Nassa*? sp. abundant.

Visited Muir Woods Natl. Monument.

Got cabin at Santa Rosa.

Santa Rosa, Calif., Fri.,

July 24, 1931.

Drove south to Burdell, about
24 miles.

940 Sta. 1931-31, tidal slough at mouth
of San Antonio Creek - *Modiolus* - 1 dead
marina snail.

941 Sta. 1931-32, near San Rafael
ferry - *Littorina* 2(?) spp.

San Antonio Creek dry where
we crossed it above tidewater at
Marine Co. line, and said to be
dry now all the way up.

Modiolus at Sta. 31 were abundant
in clusters in soft mud, with
anterior ends exposed both above and
below water line, tides rather high.

Santa Rosa, Sat.,

July 25, 1931.

Drove S. to Petaluma, then west.

942 Sta. 1931-33, pools in creek perhaps
about ~~2~~^{1/4} to 10 mi. W. of Petaluma on
Point Reyes road. *Physa* & *Anodonta*

943 Sta. 1931-34, tidal slough just below Inverness, about 6 mi. beyond Point Reyes Station (P.R.), Cerithiidae

944 Sta. 1931-35; Point Reyes lighthouse
Littorina & small acorned on rocks.
Helminthoglypta & 1 dead Haplotrema
on hillside near lighthouse under sagebrush.

Santa Rosa, Mon. July ~~26~~²⁷

945 Sta. 1931-36, ^{about} creek 6 mi. N. of Santa Rosa on Curiea Road, Mark West Brook. Goniobasis, Lym. Physa & Pisidium

946 Sta. 1931-37, Russian River at Hopland. Physa, small Planorbis, Pisidium.

947 Sta. 1931-38. Clear Lake. Succinea, Anodonta & Physa at Lakeport.

Rented cabin at Lakeport,
Rainbow Camp.

2 Japs were gathering Anodonta for food-balls, then fry - sell for 30¢ a dozen.

Coler Lake, Lake Co., Calif.

Tues., July 28, 1931

rove around lake.

948 Sta. 1931-39 near bridge, N. end of lake, a few Physas & miniature Planorbis

949 Sta. 1931-40, E. side of lake a mile or so N. of Lucerne, very shallow water on pebbly beach. Small Physa abundant, probably adult, as eggs were abundant & no large dead shells washed up on beach, which was open, not protected. Sta 39 protected by tules.

Got 3 large cones from pine with long needles sparsely spaced.

In driving around the lake we saw no running water entering or leaving the lake. The intake and outlet both seemed stagnant. Water for domestic purposes and irrigation is obtained by pumping.

Ukish Lake, Wednesday

July 29, 1931

rove to main highway, 3

mi N. of Ukiah, then turned north.

950 Sta. 1931-41, 10 mi. N. of Willits in pools of small creek. *Pisipeta* + *Planorbis*.

Examined several creeks on the way without finding mollusks. Most gulches + channels are dry.

Got cabin at Garberville

Garberville Camp, Thurs.,

July 30, 1931.

951 ~~Sta.~~ Sta. 1931-42, Eel River (perhaps S. fork) 2.3 mi. N. of Garberville. *Anodonta* + *Physa*.

Other places on the river yielded no mollusks.

Van Duzer River consisted of a pool of water disappearing between pools. No mollusks.

Eureka, Calif., Friday

July 31, 1931.

Drove to Arcata & around north end of bay to the peninsula.

952 Sta. 1931-43, Ocean beach about 2 or 3 mi. N. of Samoa. Took a few specimens. Only a few spp. there, all dead shells.

After noon drove south of Eureka.

953 Sta. 1931-44, beach at lighthouse about 20 mi. S.W. of Eureka. Found jellies. - Table Bluff Lighthouse.

Eureka, Calif., ^{Aug 1.} July 31, 1931

Drove to Arcata then on Blue Lake Road toward Redding. Blue Lake a small lily pond. No mollusks

954 Sta. 1931-45, creek 26 mi. from Arcata. - Goniobasis

955 Sta. 1931-46 small creek 58 mi. from Arcata - Goniobasis
6 1/2 mi. up Willow Creek from Willow Creek P.O.

Eureka, Calif. Mon.

July Aug. 3, 1931

grove north
956 Sta. 1931-46, ⁴⁷ ~~about 3 mi. S.~~ ~~about 3 mi. S.~~ ~~of~~
Trinidad (10 mi. N. of Arcata) rocky
shore.

957 Sta. 1931-48, Redwood brook at
Creek - Goniobasis.

958 Sta. 1931-49, small creek about 7 mi
N. of Creek. Goniobasis

959 Sta. 1931-50, Klamath River at
Redwood Park resort 3 or 4 mi. above
Klamath. Goniobasis, Lamy, Parapholys,
Gouder.

Babin at Crescent city

Crescent City, Trees.

Aug. 4, 1931

Started northeast

960 Sta. 1931-51, Smith River, 9 mi
NE. of Crescent city. Goniobasis + Lamy

961 Sta. 1931-52, Elk Creek, Siskiyou
Mts. 43 mi. from Crescent city

Goniobasis - just before entering Oregon

962 Sta. 1931-53, W. fork Illinois
River, 49 mi. from Crescent city - Goniobasis

963 Sta. 1931-54, Deer Creek, 23 mi
S.W. of Grant's Pass - *Physa* & *Gnathobasis*
964 Sta. 1931-55 small creek 16 mi. S.
W. of Grant's Pass; - 2 mi. S.W. of
Wonder.

Cabin at Grant's Pass, Or.

Grant's Pass, Ore., Wed.

Aug. 5, 1931

Drove N.W. to Cabin.

965 Sta. 1931-56, Klamath River $1\frac{1}{2}$ mi.
above S. of Hornbrook Camp. *Parapholypis*,
Gonidea Physa, etc. - Calif.

Cabin at Yreka, Calif.

Yreka, Calif., Thurs.

Aug. 6, 1931

Hot yesterday afternoon, cool this morning

966 Sta. 1931-57, Shasta River,
4 mi. above of junction to Spf
with Klamath River, between Yreka &
Hornbrook.

Got cabin at Klamath Falls.

Klamath Falls, Ore.,

Fri. Aug. 7, 1951.

967 Sta. 1951-58, lower end of Klamath
Lake & Klamath River just below the
lake. *Gammarus*, *Planorbis*, *Parapholyx*,
Physa, *Lymnaea*, *Lana*, *Fluminicola*,
Valvata & *Anodonta* - 1 *Cyrgalopsis*

Crater Lake, Ore., Sat.,

Aug. 8, 1951.

Drove here this morning. Afternoon
went down trail to water

968 Sta. 1951-59, Crater Lake, at new
boat landing. *Lymnaea* & *Parapholyx*.
Type loc. of *P. e. diagonalis* were old boat
landing, now abandoned.

Crater Lake, Sunday

Aug. 9, 1951.

Went down to lake again & found
1 *Lym.* & some large *Parapholyx*.

Bent, Ore., Mon.

Aug. 10, 1931

Drove here this forenoon & got cabin
and car serviced.

Bent, Ore., Tues.

Aug. 11, 1931

Drove north

969 Ste 1231-60 - reaches River at
Maupin, Ore. 5 or 6 spp.

Examined 2^{or 3} small creeks but
found no mollusks. Brooked River,
where we crossed it, is in a deep
gorge, so could not get to the
water.

Camped at The Dalles

The Dalles, Ore., Wed.

Aug. 12, 1931.

~~so~~ started for Idaho. Got Cabin
at La Grande, Ore.

La Grande, Ore., Thurs.

Drove on, all paved road thus
far from Mexico except where repairing

Beyond Huntington road torn up
for 5 or 10 miles.
Cabin at Boise, Id.

Boise, Id., Fri.

Aug. 14, 1931

Drove on. First rain of season
last night, this morning & thru afternoon.
Cabin at Burley.

Burley, Id., Sat.,

Aug. 15, 1931.

Drove to Pocatello & got cabin at
Late City Auto Court.

Road to American mostly rough
old road, 10 miles or so coarse
gravel. Then to Pocatello good
old road.

Pocatello, Id., Mon.

Aug. 17, 1931

Stayed over Sunday, started N.E.
this morning. Got cabin at Mack's
Inn, 23.9 mi. from W. Yellowstone
970 Sts. 1931-61. N. fork Snake River at
Mack's Inn.

Yellowstone Park, Tulle.,

Aug. 18, 1931.

Reached Yellowstone Falls at 3 p.m.
Rained all afternoon. Got cabin at
camp.

Yellowstone Falls, Wyo.,

Aug. 19, 1931

971 Sta. 1931-62, foot of ^{Fulcrum} falls in tiny,
quiet pools a foot or two in diameter,
in both warm & cool, but not cold,
~~swift~~ swift water - about hot
springs. *Lygm. caperata walthamii* Baker
type loc.

Drove to Jackson Lake & got a
cabin at Moran. Rained.

Moran, Wyo., Thurs.,

Aug. 20, 1931.

972 Sta. 1931-63, S. shore Jackson Lake,
close to dam. Water very low. *Carinifer*,
Lygm. Physa, *Pisidium*.

973 Sta. 1931-64, stagnant pool just
below dam, at Moran. Large *Physa*
after noon we searched Snake River

for a mile or 2 below the dam but
found nothing.

Moran, Wyo., Fri.,
Aug. 21, 1931.

Drove south.

974 sta. 1931-65, Jenny Lake, Wyo., at
foot of Grand Teton, ~~to~~ Lynnaea
& Physa. In Teton National Monument.

Crossed Teton Pass to Victor
Griggs, Raftburg & got cabin at
Blackfoot.

Montpelier, Ida., Sat.,
Aug. 22, 1931.

Drove here, arriving at 2 p. m. &
got cabin

975 sta. 1931-66, sloughs W. of here
where we collected largest *Lynnaea*
last year, dry, but lots of dead shells.

Montpelier, Aug 23, 1931

Hot here. Drove over to Garden
City. Windrows of shells beaten into the
sand by rain & wind.

Aug. 24

Rock Springs, Wyo.

Got cabin here this evening.

Rock Springs, Tues.

Aug. 25, 1938

Drove to Boulder, 345 mi., 2 a.m. to 7 p.m.

yesterday we had only 10 mi. of oiled road ~~from~~ (E. of Green River) from Montpelier to Rock Springs, more being today oiled.

Today 5 mi. oiled road

5 mi. S. of Rock Springs

110 " W. of Rawlins

32 " E. " "

19 " N. " Laramie

18 " " W. " Ft. Collins &

more gaspings.

52 " Ft. C. to Boulder

226 total for day in 345 mi.

Boulder, Speedometer 20,091

started at 13,840

for trip 6,251 mi.

15.6 gal gas. per mile.

Colo., Wyo., Mont.

Boulder, Colo.,

Sat., June 18, 1954

Left Boulder in Dodge Six, with
Hugo K. Rodeck, 8:30 a.m.

Speedometer 21644, gas tank full.
Stopped at Fossil Ridge, thence
through Ft. Collins, Bellvue, Owl Canyon,
E. through Wellington and Huma for
several miles & back to Pierce, where
we rented a cabin. Had a furious
thunder storm, with hail, just after
we got into the cabin.

Aut., Colo., Sun., June 19, 1954

Hot, mostly bright, a little sprinkle
about 1:30 p.m.

Drove E. & N. through Purcell &
to Briggsdale, back via Fosston,
Borwich & Eaton. Examined some
fossil outcrops.

Rabbits numerous. Along Crow
Creek more black-tailed jackrabbits
than white-tailed.

Rain in evening.

Aut., Colo., Monday,

June 20, 1932

Drove N. through Cheyenne
& Torrington and got a cabin at
Rainbow System's Pioneer Camp,
Lusk, Wyo.

Several hard showers between
Torrington & Lusk. Fairly cool in
shade, hot in sun.

Lusk, Colo., ~~Tuesday~~
Saturday,

June 21, 1932

Hot, bright morning.

Drove W. to Lost Springs, then
6 mi. N., no bet. outcrop.

Back
to Lost Springs, 4 mi. W. to
Shawnee & 4 mi. S.; all Tert.?

5 or 6 mi. N.W. of L.S., Mesa Verde
with coal. Mississippian cherts with
spisifer on top of hill E. of road in
Plat. (?) ⁵ road For. Sta. 1.

Drove ⁵ W. of Shawnee to Aris, on
N. Platte R., but found no fossils nor
mollusks.

Hat Creek, Wyo., Wadsworth.

June 22, 1932

Hot, bright.

Drove to Hat Creek, then 10 mi. N.,
turned W. and S. on Lance Creek road
7 mi. to

Foss. Sta. 2, near bridge over a
gully, Pierre fossils.

Foss. Sta. 3, Fox Hill crest, bluff N.
of Lance Creek - Hat Creek road,
about 6 mi. N. E. of ^{Lance} ~~Hat~~ Creek P.O.,
which is now a couple of miles a
mile or two S. of Lance Creek.

Yellowish, soft, massive ss. with hard,
thin bedded layers & hard concretions.
Vanilla humilis etc.

Overlaid by white Lance ss., also
concretionary, some ss. strata near
base of Lance contain numerous
vertical "borings", mostly
smaller at bottom, up to 7 or 8 inches
long in depth and an inch in diameter.

Returned to Lusk at 5 p.m.

Buck, Wyo. Thurs.

June 23, 1882

Hot, bright morning. Drove North
Foss. Sta. 4, 15 mi. N. of Hat Creek
P.O., W. of Highway. Fox Hills crest.

Foss. Sta. 5. ¹⁸ Pierre thin-bedded
black shales, ~~the~~ concretion containing
Baculites, about 3-4 mi. N. of Hat Creek.

Drove to Newcastle and got a
cabin. Very hot in sun all day,
cool in shade or in the breeze.

At Sta. 4 several spp. of *Asaphites*
mingled with *Verrillia*

Newcastle, Wyo., Fri., June 24
Another very hot morning.

Drove S. W.

Foss. Sta. 6, Teepee Butte horizon,
Pierre crest, about 11 mi. S. W. of
town on Hampshire road, N. of road.

Foss. Sta. 7, ~~2~~ 2 mi. W. of #6
Upper Pierre crest at base of Fox
Hills crest bluff.

Returned to Newcastle and

shipped 2 kegs of fossils by
express.

Newcastle, Ont., June 25.

Hot morning. Started N. W.

N. W. of Thornton we saw Devil's
Tower to the N. E., probably 25 or 50
miles away, perhaps more.

Reached Sheridan at 3 p. m.

Some rain along road and in one
place we had to put on chains for
a mile or two over clay road.

Just after getting into a cabin
at Log Cabin Camp, Sheridan, a
furious thunder storm broke,
the worst wind & rain storm I
have seen for years.

Sheridan, Wyo., Sunday

June 26, 1932

Stayed in camp all day. Cool.
Rained hard in afternoon.

Sheridan, Wyo., Monday

June 27, 1932

Partly clear morning, warmer.

Drove to Buffalo, ^{Wyo.} thence W.

Moll. Sta. 976, canyon in E. side Big Horn Range, W. of Sheridan.

Moll. Sta. 977, Shell Creek, 13 mi. N. of Buffalo. There is also a Shell Creek on West side of Big Horn Mts. This loc. is on E. side

Moll. Sta. 978, Slough 22 mi. N. of Buffalo.

Moll. Sta. 979 slough 6 mi. N. of Sheridan, Wyo.

Hot afternoon.

Returned to Sheridan at 5-p.m.

Sheridan Wyo., Tues

June 28, 1932

Drove S. E. to U. cross

Moll. Sta. 980. Mrs Kate Williams Ranch 6 mi. W. of U. cross

Foss. Sta. 8 Ft. Union. Specimens donated by Mrs. W. several loc.

Xiphiparus reynoldsonus, large slabs.
We also obtained some weathered out
specimens from the ledge in place
on hill N.W. of ranch house about
half way up slope or more.

Returned to ~~to~~ Sheridan at 1 p.m.,
packed and shipped a box.
very hot day

Sheridan, Wyo., Wednesday
June 29, 1932

Very hot, bright day.
Drove to Billings, Mont., and put up
tent on grass under tree in municipal
camp park.

Billings, Wyo., Thurs.
June 30, 1932

booler, with breeze
Foss. Sta. 9, Blaggett bet., about
2 mi. E. of N. from town.

Billings, Fri., July 1, 1932

Bright hot day, collected again at
Foss. Sta. 9.

Billings, Mont
Sat. July 2, 1932

Rained during night & this morning
Drove E. down Yellowstone R.

Moll. Sta. 981 slough 36 mi. E. of
Billings, E. of Pompey's Pillar

Foss. Sta. 10, Hell Creek beds, 2 1/2
mi. up Slaughterhouse Creek
gulch, S. E. of Forsyth.

Moll. Sta. 982, slough at Rosbud
on Yell. R., Mont. - Wynnewood, 2 spp.

Got cabin at Miles City

Miles City, Mont., Sunday,
July 3, 1932

Clear, cool forenoon, hot afternoon,
cool, rainy evening. Staged in camp
all day.

Miles City, Mon., July 4.

Cloudy - rained at noon
Examined a fine exposure of several
hundred feet of Lance bed. S.W. of
the city - no fossils.

In afternoon we went to a rocko.

Misses City, Mont.,

Tues., July 5;

Cool, windy, partly cloudy.

Drove to Glendive and got a cabin
at Shady Park Camp.

Examined formation S. & S.W. of Glendive
& found no fossils. Reside reported
beautiful fossil plants in white Colgate sd.
just S. of Glendive.

Glendive, Mont., Wednes.

July 6, 1932

Drove to Wibaux.

Walt Sta. 983, ^{beaver} creek at Wibaux

" " 984 creek 8 or 9 mi. W. of "
in Griffith Creek.

Took photos of erosion, concretions,
etc. S. W. of Glendive.

Partly cloudy, windy, sprinkled.

Gladstone, Mont., Thurs.,
July 7, 1932

Warner, ~~got~~

drove down river, N.E.

Moll. Sta. 985, 2 1/2 mi. N.E. of
Gladstone, small creek, near Auburn.
Looked for "petrified forest" S. E.
of Savage. Road crew said "round
Escondido" (concretions).

Moll. Sta. 986, Small creek ^{2 mi.} S.W. of
Fairview (N.E. of Sidney).

Moll. Sta. ⁹⁸⁷ ~~987~~ ^{shotgun} creek ^{1 mi.} W. of
Aurora, ~~small~~ creek on northern
River, Mont., about 4 1/2 mi. ~~W. of~~
S.E. of ~~Bainville~~ Bainville, Mont.;
large quadrants.

Hot afternoon.

Got cabin at Wolf Point.

Wolf Point, Mont., Fri.,
July 8, 1932

Partly cloudy, hot morning & all day.
Moll. Sta. 988, small creek about
a mi. N.E. of Wolf ^{Point} ~~creek~~ town.

Physas here + at yesterday's local-
ities when large + mature are
dead shells.

Mall. Sta. 989, Wolf creek about 1
mi. W. of Wolf Point. Physas,
large, 2 sp.

Continued for Friday
Fraser, Mont., Fri. July 8

Foss. Sta. 11, 1 mi. of town, Bearpaw
Bret. according to map, 1 caliche
cast of Risculites

Exposures very few since leaving
Poplar.

Mall. Sta. 990, ~~1~~ mi. creek W. of
Fraser, only 4 disconnected pools,
not running water

Mall. Sta. 991 ^{Porcupine} creek at Nashua
Got fine cabin at Glasgow, Mont.

Glasgow, Mont. Sat.,
July 9, 1932

Cold wind this morning, clear
drowsy West.

Mall. 992, ~~2~~ creek 22 mi. W. of
Glasgow on road to Sec. Lynnas

Moll. Sta. 993 ditch or stream
2.4 mi. W. of Glasgow

Moll. Sta. 994, Beaver Creek
and small ditch, at Saco, Mont.

Moll. Sta. 995, ditch 7 mi. E. of
Saco.

Moll. Sta. 996, creek 4 mi. W. of
Glasgow.

The formations east & west of here
for a long distance are mostly covered
with glacial debris, topography of
flat spaces and gentle slopes,
no chance for fossils. Examined
the bluffs N. of Hinsdale. No fossils
except fragments of Beaulites

Glasgow, Mont., Monday
Sunday, July 10, 1932

Cloudy, cool windy, rained in evening
Stayed in camp

Glasgow, Mont., July 11

bloudy, cool
Drove West

Mall. Sta. 997, slough just W. of
Judson.

Mall. Sta. 998, roadside slough
4 mi. W. of Harbin.

Mall. Sta. 999, slough 1 1/2 mi. E.
of Chinook.

Mall. Sta. 1000 slough 1 mi. W. of
Chinook

Got a cabin at Havre

warmer this afternoon

Havre, Mont., Tues., July 12

crossed to N. side of river, badlands
a mi. above town, locality mentioned in
U.S.G. Bull. 25-7

Foss. loc. 12, Judith Creek, in
"badlands bluffs" at Lower part of exposure
Unio frequens abundant - no good specimens
2 *unio* ^{& a *Sphaerium*}, about middle of exposure
Unio somnibasis and *Sphaerium*, thick
ledge, preservation poor. Top of exposure
1 piece containing *Corbula*, *Urdinia*, etc.

Moll. Sta. 1001 steep slope, sand loc.
to dead *Triceras* & *avara* abundant.

Moll. Sta. 1002, slough just above
mouth ^{of Pequey Creek, on} Milk River, about 3 mi. W. of
Havre

Foss. Sta. 13, bluff at same Sta
Plaschias in crevices. *Orthis*
subtrigonalis bed also

Moll. Sta. 1003, ditch at bridge
1 mi. S. of #1002

Moll. Sta. 1004 small slough S. of
highway, 24 mi. S. of #1003.

Havre, Mont., Wed., July 13.

Moll. Sta. 1005 creek W. of Guilford.

" " 1006 " just W. of Galata.

Sphaerina valves & fragment of
Laerpsilia.

Moll. Sta. 1007, ^{shallow} creek 1 mi. W. of
Devon

Moll. Sta. 1008, small, shallow lake
6 mi. W. of Shelby.

Passed over Brit. formations at

day but saw no good exposures.
Flat & slightly rolling country,
few streams.

Hot day, cool evening, with rain at
Browning, near the Mts., where we got a
cabin.

Browning
Have, Thure, July 14, ¹⁹/₃₂

Bold strong wind this morning
Moll. Sta. 1009, Willow Creek 12 mi.
E. of Browning, 3 mi. E. of Blackfoot.
Moll. Sta. 1010, 2 1/2 mi. E. of
Blackfoot.

Moll. Sta. 1011, shallow lake 1/2 mi.
S.W. of Blackfoot.

Moll. Sta. 1012, vegetation choked creek
31 mi. S. E. of Browning.

Moll. Sta. 1013 small creek 38 mi. S. E.
of Browning, just W. of Dupuyer.

Moll. Sta. 1014, sep. creek, just E. of
Choteau.

Moll. Sta. 1015; Slough 10 mi. S. of E.
from Ashcroft.

Get cabin at Great Falls.

Warmer this afternoon.

Great Falls, ~~Monday~~ ^{Friday}

July 15, 1932

Bright, hot morning

Drove west up N. side of Sun River, which flows into the Missouri at or near Great Falls.

Apex 7 mi. W. of Great Falls, in a rainwater slough

Well. Sta. 1016, slough 8 mi. W. of Great Falls - Lyman, Phys.

Well. Sta. 1017, very dry slope 14 mi. W. of Great Falls.

Foss. Sta. 14, same place, shark tooth half way up slope, leaves in white s. near top of bluff. Colored brk. according to map.

Afternoon we drove out to Sand Coulee ^{and} Stockett, back by way of Eden and Griffin, to examine the Ellis Jurassic. Found it everywhere mostly covered by talus and found no fossils.

Great Falls, Ind., July 16

Bright, hot morning

Moll. Sta. 1018, artificial reservoir
near head of draw 15 mi. N.E. of
City on Ft. Benton road. Plainly
rainwater held by small dam. Reservoir
about 300 ft. long, 85 ft. wide. Many
dead salamanders, Pleurobiae abundant
alone, 3 or 4 *Lymnaea*, 1 dead *Physa*
Whence? Probably an old spring
which has been dammed. No stream
flowing in or out. (Salamanders also)

Moll. Sta. 1019, Spring near head of
draw 16 mi. N.E. of Great Falls. No
flowing stream. *Lymnaea* abundant.

Moll. Sta. 1020 artificial reservoir
formed by dam across dry gulch -
perhaps spring. Helicoma, *Lymnaea*,
Lymnaea, *Physa*. 2 1/2 mi. N.E. of
Great Falls, 1 1/2 mi. S.W. of Flower Hill
Reservoir at Tunic, (also salamanders)

Moll. Sta. 1021, Reservoir just E. of
Tunic, 35 mi. N.E. of Great Falls.
No stream, *Physa* & *Lymnaea*, ^{also salamanders} large

Moll. Sta. 1022, Missouri River at
Ft. Benton, 1 live *Physa*

Moll. Sta. 1023 spring below dam
at ~~Tunice~~, # 1024, Tunice.

Moll. Sta. 1024, reservoir (small)
in dry ravine 1/2 mi. S.W. of
Flowers.

A very hot day.

Great Falls, Mont.

Sunday, July 17, 1932

A very hot morning, day

Packed a box for shipment.

Great Falls, Monday,

July 18, 1932

Cool, cloudy morning

Moll. Sta. 1025, banks of Missouri
River, 8 mi. S.W. of ~~Wm.~~ Wm. Successa
on muddy bank near willows, *Lygus*
in drift wood. There is nearly dead
slough - S.W. of Great Falls

Moll. Sta. 1026, Missouri River just
below cascade. *Laupalis*, etc.
S.W. of Great Falls.

Moll. Sta. 1027, Missouri River at
park near bridge, west edge of Great
Falls. *Lempidius* alive, large. *Physa* & *Lymnaea*
naea alive. *Sphaerium* dead.

Shipped a box.

Great Falls, Tues. July 19

Good, cloudy, rained a little

Read proof all day on Economic
Mammalogy

Gr. Falls, Wed., July 20

Warmer, clear day.

Read proof again all day. All ready to
be returned to printer tomorrow.

Gr. Falls, Thurs., July 21

Hot, bright morning

Moll. Sta. 1028, creek on Highway
89 to Lewiston, 10 mi. E. of Gr. Falls

Physa

Moll. Sta. 1029, slough 3 mi. E. of
Armington on 87 E, *Physa* & *Lymnaea*

Moll. Sta. 1030, spring 14 mi. E. of
Armington, *Physa* & *Lymnaea*

Moll. Sta. 1031, creek N. of Geyser & *Physa*

Moll. Sta. 1032 rivulet $5\frac{1}{2}$ mi.
E. of Marino. Physa, Lymnaea
Moll. Sta. 1033, creek at Holier
Hobson, Physa, Lymnaea & Planorbis.
Got a cabin at Lewistown
Bright all day, but with a breeze, so
not so very hot.

Lewistown Mont. Friday
July 22, 1936

Bright, hot morning
Moll. Sta. 1034, slough at edge
of Lewistown
Moll. Sta. 1035 at Madison l. s.
outcrop 7.7 mi. N. E. of Lewistown
N. of Highway 87-E. Cheeky etc.
Moll. Sta. 1036, creek (sluggish
choked with alga) 6 mi. S.E. of Grass
Range. Physa & Helisoma
Moll. Sta. 1037, rivulet 7 mi. S.E.
of Buttrick
Moll. Sta. 1038 creek 11 mi. S.E.
of Buttrick, perhaps Flat Willow cr.
Moll. Sta. 1039, Musselshell River,

Roundup, 2 valves of *Lampisilis*.
River too muddy to see to collect
live ones, bottom gravelly.

Got a cabin at Roundup.

Roundup, Mont., Sat.
July 23, 1932

Warm, partly cloudy.

Moll. Sta. 1040, Musselshell River,
6 mi. W. of Musselshell, 1 valve of
Lampisilis.

Foss. Sta. 14, ^a N. of ss. ridge, 5 mi
N.W. of Musselshell, concretions in
Beardoo shales.

Moll. Sta. 1041, Musselshell River at
Musselshell.

Roundup, Mont., Sunday
July 24, 1932

Hot, bright morning
Drove west.

Moll. Sta. 1042, slough 4 mi. W.
of Roundup on Musselshell River.
Moll. Sta. 1043, slough 5 mi.
W. of Roundup.

Moll Sta. 1044, Musselshell River
near Rye gate 4 1/2 mi. W. of Roundup
Lampyris & Physa.

Moll. Sta. 1045, slough ~~to to to~~
mi. W. of Barber, 5 1/2 mi. W. of
Roundup.

Moll. Sta. 1046, slough 1 mi. E. of
Harlowton.

Put up tent in auto park at
Harlowton

Moll. Sta. 1047, Musselshell River and
slough about one mile E. of Harlowton
near bridge.

Moll. Sta. 1048, slough at ~~auto~~
Tourist Park, Harlowton.

Harlowton, Mont., Monday

July 25, 1954

Bright, hot sunny
dove west

Moll. Sta. 1049, rivulet 5 mi. W. of
Two Hat, 16 mi. W. of Harlowton.

Moll. Sta. 1050, River at Selkirk

19 mi. W. of Harlowton, Musselshell River
Moll. Sta. 1050, creek 1 1/2 mi. W. of
Alkirk

Moll. Sta. 1052, small rivulet about
1 mi. N. of E. from White Sulphur Springs
Moll. Sta. 105-3, creek 9 mi. S. of
White Sulphur Springs, on Highway
87 W.

Moll. Sta. 1054, slough 12 mi.
S.W. of Wh. Sul. Sp. after ^{Helena} road
leaves highway 87 W. for ~~Helena~~

Moll. Sta. 1055, ash groove 22 mi
S.W. of White Sulphur Springs, 30 mi.
E. of Townsend

Moll. Sta. 1056, slough ¹⁵ 2 3/4 mi
N. of Townsend.

Got a cabin at Helena

Helena, Mont., Tuesday,
July 26, 1982

Bright, warm morning

Foss. Sta. 15, just S. of lime kiln
quarry, Tripplly Gulch, S. of Helena.

Med.
Helena, Mont., ~~Thurs.~~
July 27, 1932

Bright & warm

Moll. Sta. 1057, mountain creek
near Elliston, 21 mi. W. of Helena

Moll. Sta. 1058, slough 6 1/2 mi
W. of Elliston

Moll. Sta. 1059, slough 4 mi. W. of
Aron, tributary of Hell Gate River

Moll. Sta. 1060, slough 2 mi. W.
of Harrison, on Hell Gate River

Moll. Sta. 1061, slough on same
6 1/2 mi. W. of Gold Creek.

Moll. Sta. 1062, Byrnes Resort, on
Hell Gate River, 3 1/2 mi. W. of E. of
Missoula. Oresolite, etc. in rock slides.

Got cabin at city Auto Park in
Missoula.

Missoula
Helena, Mont., Thurs.,
July 28, 1932

Hot day

Stayed in camp & read proofs on
Economic Mammalogy

Helena, Fri., July 29

Drove up Hellgate River

Moll. Sta. 1063, 1 mi. above 1062,
under cottonwood in river bottom.
Oreohelix in ss. rock slides on hot,
dry, south slope, only 1 alive a number
of "boxes."

Revisited Sta. 1062, found none alive
but many boxes. Yesterday we
found 3 or 4 of the corrugated form
alive.

Moll. Sta. 1064, slough 2 mi. below
Byrne Resort

Moll. Sta. 1065, slough 5 mi. below
Byrne Resort

Moll. Sta. 1066, slough 10 mi. below
(W. of) Byrne Resort

Moll. Sta. 1067, slough ~~2~~ 12 mi. below
Byrne Resort.

Moll. Sta. 1068, slough 22 mi.
below Byrne Resort.

Missoula, Mont., Sat.,
July 30, 1932

Bright & hot

Moll. Sta. 1069, rock slides on
Blackfoot River, about 2 mi. N. of
Milltown, ~~E.~~ E. of Missoula

Moll. Sta. ~~1070~~ ¹⁰⁷⁰ ^{basins} creek 7 1/2
mi. N.E. of Milltown, 18 1/2 mi. N.E. of
Missoula - very large sphaerium, with
Ferrissia, Physa, Lymnaea (small)

& Helisoma

Moll. Sta. 1071, ^{old creek} small rivulet 33 mi
N.E. of Missoula on road to Seely Lake

Moll. Sta. 1072, rivulet ²² mi. N.E. of
Missoula on same road.

This is a short distance above where the
road from Missoula to Seely Lake, etc.,
crosses the Blackfoot River, near
McNauara R.R. station.

Missoula Sun, July 31
cloudy with slight showers, cool

Missoula, Mont., Monday
Aug. 1, 1932

Cloudy, cool morning

Moll. Sta. 1073, Bitter Root river
slough at bridge near Ft. Missoula
4 mi. from Missoula

Moll. Sta. 1074, Solo creek, 11 mi.
from S. of Missoula, ^{on Bitter R. River}
Lumitoides-like, black
snails very abundant on moist soil.
Polygyra, 2 spp., in wash.

Moll. Sta. 1075 slough by roadside
13 mi. S. of Missoula, Bitter Root River.

Moll. Sta. 1076, slough on Bitter
Root River 16 mi. S. of Missoula.

Moll. Sta. 1077, Slough 2 mi. farther
South.

Missoula, Mont. Tues.
Aug. July 2, 1932

bold & bright, soon warming.

Moll. Sta. 1078, Rattlesnake creek,
just above Missoula

Sta. 1079, mouth Rattlesnake creek
at Missoula.

Sta. 1080, slough 11.5 mi. W. of

Missoula, on Missoula River

1081, small creek at Franktown, on
Missoula River, about 17 mi. N. of W.
from Missoula

Missoula, Mont., W. Va.

Jan Aug 3, 1932

Bright hot morning

Moist, sta. 1082, Jocks creek, N.W.
of Arlee, in Jocks Creek & small pool
Sta. 1083 rivulet or ditch 4 mi.
N. of St. Ignace

Sta. 1084, S. end Flathead Lake near
Polson

Got cabin at Flathead Lake, at Polson

Flathead Lake, Mont.

Thurs., Aug. 4, 1932

Bright, hot.

Sta. 1085, W. side Lake 13.5 mi. N. of
Polson, Ryer, Physa, Helisoma; Lomatoides
several in A. under birches or alders.

Sta. 1086, 16.7 mi. N. of Polson.

" 1087. 21.7 " " " "

Moll. Sta. 1088, Layton, N. side of Lake,
2 1/2 - 5 mi. N. of Polson.

Moll. Sta. 1089, Big Fork, N. E. cor.
Flathead Lake, in stream

Moll. Sta. 1090, pond 1 1/2 mi. S. of
Big Fork, on E. side of Flathead Lake.

Flathead Lake, Fri,
Aug 5, 1932

Warm, partly cloudy.

Rowed across lake to bay at S.E.
corner, which is

Moll. Sta. 1091.

Flathead L., Sat.
Aug. 6, 1932

Bright, Warm

Moll. Sta. 1092 Spring slough
5 mi. E. of Polson near lakeshore

Sta. 1093 Swan Lake, E. of Flathead
Lake, 6 mi. from Big Fork, 4 1/2 mi
from Polson.

Sta. 1094 Spring 3/4 mi. from
Swan Lake on road to Big Fork

Sta. 1095, Swan R. or Big Fork River,

4 mi. above Big Fork

1096, shallow, vegetation filled
slough 4 mi. S. of Big Fork.

In yesterday's dredging we
found no mollusks and no bottom
suitable for mollusks. All our collections
in Flathead Lake were in two or three
places along shores somewhat protected
by growths of rushes, etc., and in one
place protected ~~to~~ from waves by a log
boom. We used the water scope in
dredging, so had a good view of the
bottom at various depths.

Flathead L., Monday
Aug. 8, 1932

Cool, cloudy morning

Woll. Sta. 1097, 1 mi. S. of Pabb,
10 mi. S. of Polson, small creek.

Sta. 1098, slough in ground
moraine 1 1/2 mi. S.E. of Rouan

Station 1099, Lake McDonald, N.E. of
St. Ignace. *Oss. elrodi* in rock
slides at N. ~~side~~ ^{end} of dam *Pisidium* below

lake in spring bog, also *Lycopodium*,
also *Fagus* & *Physa* in creek just
below the lake

Sta. 1100, aspen grove, very dry, 1 mi.
below S. McDonald

Sta. 1101, game ~~to~~ refuge lake N. of
Rouan

Got a cabin at a camp about 6
mi. N. of St. Ignace, on Post Creek
Mod. Sta. 1102, Post Creek.

Margaritifera m. falcata

sprinkled a little early in forenoon
afternoon bright and hot.

Missoula, Tues., Aug. 9

Bright morning

Drove to Missoula and got cabin
at same camp as before.

Rained in afternoon, cool.

Read proof on *Edouard's Mammalogy*

Missoula, Wed., Aug. 10

Cool, rainy

Read proof all day

Missoula, Mont., Thursday

Aug. 11, 1932

Good day, partly cloudy.

Read proof all day.

Missoula, Fri., Aug. 12

Rained hard about daylight.

Cool forenoon, bright & warmer in afternoon.

Read proof all day.

Missoula, Sat., Aug. 13

Bright, ~~and~~ warmer. Blackfoot River
Mill Sta. 110 1/2 mill creek 17 mi.
above Milltown

Visited 1870 again, Camas creek

Mill Sta. 1104. bet. Drummond & Garrison

Got room at Jensen's Lodge, in Deer
Lodge

Deer Lodge, Mont., Sunday

Aug. 14, 1932

Cool, cloudy morning. Bright, hot
afternoon.

South
Drove west to the mountain Molluck
scree

Moll. Sta. #1105, on big ^{terminal} moraine
at W. side of Valley, under aspen ^{2 species}
Dead Lign. and Zyrankus in glacial
label, record

Deer Lodge, Mont., Monday,
Aug. #15, 1932

Partly cloudy.
Drove to Roseman and got cabin at
Sundown Camp.

Roseman, Mont., Tuesday
Aug. 16, 1932

Bright, hot morning
Moll. Sta. 1106, beaver ponds on
Gallatin River 7 mi. S. of Karst's Camp,
Mont. ~~2 mi. S.~~ Brethel's under record
Sta. 1107, lake 21 mi. N. of W.
Entrance to Yellowstone Park
Camped in cabin at Old Faithful.

Old Faithful, Wednesday

Aug. 17, 1932.

Bright, warm morning

Left Old Faithful at 8:30 a.m.

2 mi. N. of West Thumb the car
broke down. Rodeck walked back to
call up a garage. We were towed
to Yellowstone Lake garage with
a broken axle and got a cabin at
Fishing Bridge camp.

Rained a little in afternoon.

Fishing Bridge cabin camp.

Thursday, Aug. 18, 1932

Bright and warm forenoon

Last night a bear climbed up and
poked his head into the cabin window.
I punched his nose and he ran
off growling.

Rained in afternoon

Fishing Bridge, Friday,

Aug. 19, 1932

Bright, cold morning. Cool day.

Rained hard again in afternoon
Got car back from garage.

Fishing Bridge, Sat.
Aug. 20, 1952

Bright, hot forenoon, rained a
little at noon.

Drove to Mammoth and got a cabin.
Collected *Oreohelix* at gulch back
of the hotel (west), where I got
O. berryi and *cooperi* 2 years ago.

Mammoth Springs, Sunday
Aug. 21, 1952

Rained during night

Bright, hot morning.

Terraces drier than I have ever
seen them.

Rodchek went up N. side of terrace
at the lodge and got some *Oreohelix*
for anatomy.

Speedometer quit registering
mileage at Madison Junction at 26252.

West Thumb

35-

N. Entrance

28

Moran

26337 27

Got a cabin at Moran.

Moran, Wyo., Monday,
Aug. 22, 1932

Bright, cool morning
Moll. Sta. 1108, Beaver Dick Lake, Teton
Nat. Park. *Pisidium* ^{at Jackson, Wyo.}
Moll. Sta. 1109, slough, with *Ligumina*,
Aplousia, etc. *Orsotelus* on mt. side.
Got cabin at Afton, Wyo., after
crossing Teton Pass and travelling
over very rough road from Jackson
~~to~~ Victor, Ida., to Alpine, Wyo.,
good from there south
Hot day.

Afton, Wyo., Tues.
Aug. 23, 1932

Bright, frosty morning, soon
getting hot
Moll. Sta. 1110, gulch just E. of
Afton, *Orsotelus* & *Valvonia*
Moll. Sta. 1111, mouth of Grade Canyon,
about 10 min. N.E. of Bohemian Wyo.
Got cabin at Rock Springs

Speedometer quit at Madison Junction
at 26,252

By map to Rock Springs 418
return to Grade Canyon
at Cokeville 20

To Laramie 239

" Boulder - - - - - 1137

27,039

started from Boulder at 21,644
miles travelled 5,395

Rock Springs, Wyo.,

Wednesday, Aug. 24, 1932

Drove to Boulder. Oiled or greased
road all the way from Granger to
Boulder except about 30 mi. W. of
Medicine Bow.

Boulder, Colo.

Wednesday June 14, 1933

Retired from U. Colo. Monday under age limit, at 68.

Left Boulder at 10:30 this forenoon in heavily loaded lodge - 8. Rained (showers) in afternoon.

Reached Laramie 4 p. m. & put up at Counce Hotel, Pavement all way.

Laramie, Wyo.,

Thurs., June 15, 1933

Left Laramie 9 a. m. Lunch at Rawlins, reached Park Hotel, Rock Springs 4 p. m. - Paved except about 30 miles of road W. of Medicine Bow, which was being oiled. showers in afternoon
+

Rock Springs, Wyo.

Fri. June 16, 1933

Left at 9 a. m. of road Paved except 10 mi. W. of Lyman Wyo., which is being oiled.

Stopped at camp at S. side of
Salt Lake City.

Salt Lake, Sat., June 17
Drove W. oiled road except
30 from Knowles to Saldura and
for 22 mi. E. of Wells.

Stopped at Humboldt Hotel,
Winneueca, Nev. \$4.50

Terribly hot day, cooler this evening

Winneueca, Nev.

Sunday, June 18, 1933

Cooler, drove to Sparks, at edge
of Reno & got cabin at camp, 2⁰⁰,
2 rooms & bath.

Much cooler this evening.

Reno, Nev., June 19, 1933.

Good morning, Drove to Sacramento,
put up at Berry Hotel, \$5.50, 10 mi. of
gravel road at Lake Tahoe.

Sacramento, Calif.,

June 20, 1933

Fairly cool day, drove to Palo
Alto via Stockton and Dunbarton

bridge, Put up at Gross auto camp,
\$2.35

Went to Stanford University &
see Mrs. Oldroyd & Dr. Blackwelder

Mileage from Boulder 1786

gas ~~tot~~ 101.5 gal = about 14.4 gal. per mile

\$21.61

Meals 17.05

Hotels & camps 19.50

Feeding & other ^{4.60} 7.20

car storage 1.60

Greased & oil changed at 2714

Tips 1.50

65.86

Palo Alto, Calif., Sunday,
July 1, 1934

Cool, after 2 or 3 very hot days.
Started at 10:20 a.m.

Speedometer 10079, gas tank full.

Durant Hotel, at edge of Univ. Campus,
Oakland at 12 m. \$5.⁰⁰ per day.

Visited Allyn G. Smith in afternoon &
examined his collection, especially *Zonitoides*

Berkeley, Calif., Monday,
July 2, 1934

Speedometer 10128, left Palo Alto Berkeley
at 8:30 a.m. via Vallejo ~~to~~ and
Sacramento. Lunched at Auburn.
Passed through Reno and got a \$2.⁰⁰
cabin at Sparks, 3 mi. East, 4:40 p.m.
Foggy morning, hot midday.

Speedometer 10367.

10367
10128
239 miles

Sparks, Nev. Tues., July 3.

Hot, windy. Big dust storm through
Carson sinks and on desert W. of
Salt Lake. Rained W. of Salt Lake in
evening. Left Sparks 8:30 a.m.

First 25 mi short stretches of gravel road and construction alternating with ~~the~~ old oiled road. Then oiled to Salt Lake city.

Lunched at Winnemucca 10:34, 1 p.m.

Reached Evening meet at Tolla, Nev., 6 " "

Reached a camp ~~at~~ S. of Salt Lake city about 11 p.m., after a slosh drive through dust storm, rain, slippery road & darkness, 539 miles for the day. —
Clawson's camp.

Clawson's Camp, Salt Lake city,

Wed., July 4, 1954.

Much cooler, partly cloudy. Rained some during forenoon. Left at 8 a.m.

Gravel & construction Evanston to Bridger

Stopped at Park Hotel, Rock Springs, Wyo.

2:30 p.m. Room, 2 beds, \$4.00

Lunch at Lyman, Wyo., 11:30 a.m.

Boulder, Colo.

Friday Friday Nov. 2, 1934

Left Boulder (Bess + I) at 9 a. m.

13858 speedometer reading at Boulder,
gas tank full.

Began sprinkling soon after starting,
turned to snow south of Denver, ground
white at Castle Rock and south nearly
to Colorado Springs, at lunch there.
No rain or snow after noon, but high
west wind before reaching Trinidad
& over pass to Raton, where we
arrived at 5:30 p. m. Wind continued
during night. Stayed at Swastika Hotel,
double room \$4.50

Started at 8:45 Saturday
Clear, windy day, & camped at
Meadows, reached Francisco Hotel
at 4:45; Albuquerque, \$4.50 room

Albuquerque, N. Mex

Sunday Monday, Nov. 4, 1934

Stayed here over Sunday. Fair,
warm afternoon.

Seming, N. Mex.

Monday, Nov. 5, 1934

Drove here today, arriving at Park
Park Hotel 4:45 p.m. \$4.00 room.

Cool morning, ^{very} hot afternoon.

Globe, Ariz.

Tuesday, Nov. 6, 1934

Cool morning, hot afternoon, cool evening.

Lunched at Safford. Reached Spencer
Hotel, Globe, at 4 p.m. - Room # 3.00

Tree yuccas from Seming Las Cruces
West, Giant cactus ~~of~~ at Coolidge
Dam, also Ocotilla - & westward.

Yuma, Ariz.

Wednesday, Nov. 7, 1934.

Cool morning, very hot later, especially
in afternoon. Drove by way of Casa
Grande Hot. Hou. to Yuma, San
Carlos Hotel, room \$5.00. There are
a number of good looking, cheaper hotels
& many auto cabin and apartment
camps.

San Diego, Calif.

Thursday, Nov. 8, 1954.

cool, soon warming up. Left Yuma at 8:15. Soon drove ~~to~~ through miles of immense sand dunes. Lunched at White Star lunch stand.

Wta. from a ~~of~~ few miles N. of Ed Centro nearly to San Diego, where we arrived at 1 P.M. Park Hotel ~~at~~ \$2.50
Speedometer at San Diego 24940. 15370.

Friday, Nov. 9

Cloudy morning, bright, hot day.
Moved to La Mar Apts., 31 + Thoru.

Saturday, Nov. 10

cool, cloudy morning, clear, cool afternoon

Sunday, Nov. 11

Mostly cloudy & raw.

Monday, Nov. 12

cloudy (California "high fog") and very raw all day.

Tues., Wednes. Thurs.

Nov. 13-14-15, 1934

Mornings cloudy, rather cool all day

Friday, ~~Sat~~ Nov. 16

Rained hard before daylight
Partly cloudy & cool all day.

Sat., Nov. 17, 1934

More rain

Sunday 18

Rain

Monday 19, cloudy & partly

Tues. 20 bright, warmer

Wed. 21 " "

San Diego, Calif. July 23, 1935-

Drove along bay shore and across Mission Bay, called False Bay on old maps.

Sta. 1112, slough just S. of S. end of Mission Bay Causeway bridge leading to Brown Point. Fine, robust, wide unpled Berithidea, with strong ventral lip and "false lip" varices. A muddy film on surface not soft.

Sta. 1113, Brown Point, E. & N.E. of bridge.

Ostrea lurida on an old auto tire near low tide. Bullaria goldiana^{Pills}, Sandracula^{specimens}, fossil in rocks, ^{4 or 5 specimens, recent} One key-hole sand dollar fossil, but loose at base of cliff, where the Sandracula are. I had not found any key-hole sand dollars before in California, either fossil or recent. Oozy surface.

Sta. 1114, Swamp along N. ^E side of Mission Bay, near main N.-A. highway. Berithidea, same type as at #1112, but specimens smaller.

We found Berithidea, small, in tiny pools a foot or less in diameter, close to rocks, at #1112, but took none.

San Diego, Calif., Feb. 1, 1935.

Drove to Brown Point again, Sta. 1113,

& walked farther North. *Cerithidea* crawling over firm sand, as much as 3 ft., and burrowing $\frac{1}{2}$ inch in sand above low tide. *Phasianella* ^{large} abundant on and under boulders above half tide.

Sta. 1115, W. side of Brown Point.

Five clusters of *Ostrea lurida* on valves of *Pecten* (*aequitectus*?). Also some *Pliocene Dendroaster sandiegensis* and fine slabs of *Doxys gouldii* all conglomerate, including a few *Turbo stultorum*.

San Diego, Calif., Feb. 13, 1935.

Sta. 1116, at foot of high bluff at Torrey Pines, about 5 mi. N. of La Jolla. *Littorina planifis* and *acmaea* on rocks.

Fossil oysters, large, convex, at base of cliff in hard sandstone. I collected some here years ago.

On bench about 50 ft. + above oyster bed, a thick bed of loosely consolidated sand

filled with fossils, all species still living on coast. (evidently Pleistocene).

Sta. 1117, muddy tide flat at San Diego, on San Diego, opposite entrance to bay, between U. S. Marine Base and Lindbergh Municipal Air Port, at about Harathy St. *Berithidia* abundant in mud.

Sta. 1118

San Diego, Feby. 15, 1935

Sta. 1118, N. of Ferry landing, Coronado, mud flat, *Nassa arcularia* abundant. Also *Ostrea lurida* ^{sp. nov.} (not collected). No *Berithidia*.

Sta. 1119, muddy Bay shore just N. of Coronado. *Berithidia*, & *Ostrea* sp.

On ocean shore opposite, sand dollars, *Astrea nodosa* (1), *Modiolus rectus* (2), small sponges in various numbers, standing in vertical position in sand

Sta. 1120, bay shore 1 mi. farther south, *Berithidia*

Sta. 1121, 1 mi. farther S. at base of bay road. *Berithidia*

San Diego, Calif., Feb. 26
Feb. 19, 1935

Started where we stopped at 1121 on 15th
Sta. 1122, 1 1/2 mi. S. of 1121, on west
beach of Bay. *Berithidea*

Sta. 1123, 1 mi. further S. - *Berithidea* ^(by shell)

Sta. 1124, ~~two~~ slough; probably delta of
Diego Creek (or river) about 1/4 to 1/2
mi. S. of Imperial Beach, 2 or 3 mi.

N. of Mexican line. Imperial Beach is just
S. of S. end of San Diego Bay, on ocean
front. *Berithidea* and *Modiolus* abundant.
Also ocean beach - *Modiolus* *retus*, *Astraea*
undosa, etc.

San Diego, Feb. 27, 1935

Sta. 1125, ^{shore} E. side of Bay, from Sampson to
28th Sta., ^{La Jolla} ~~National City~~. *Berithidea* c. *hypothyrea*
Berry, dead shells numerous near bluffs, no
live ones. Perhaps drifting sand from dredging
has destroyed the colony

Sta. 1126, slough at 32nd St., S. of 1125;
wide angled *Berithidea*.

San Diego, Mex. 4/1935-

With Prof. & Mrs. Coakley we returned to the Silver Strand, stopped at Sta. 1123, about 15 mi. S. of Coronado. *Haminea* abundant on W. shore of Bay, with *berithidea*. One *Lophosiphonia*. Probably breeding (*Haminea*) - light yellowish bands, flattish, 3 mm. wide, 30-40 or more mm. Long irregularly tangled or not, on beach where *Haminea* were.

San Diego, Mex. 5-

Sta. 1127, Slough & E. bay shore about opp. business center of National City - *berithidea* enormously abundant.

Sta. 1128, Slough about a mile S. of 1127, *berithidea*

Sta. 1129, Bay shore a mile farther south, *berithidea*, ^{dead shells, poroids} same forms as in Sta. 1125, ~~slough~~, *Ostrea*, etc.

San Diego, Mex. 12, 1935-

Sta. 1130, S. of Sta. 1123, about 6 mi. S. of Coronado. Large *berithidea*

San Diego, Calif.

March 21, 1935

Sta. 1131 ~~for~~ ^{at} 1/2 to 1 mi. S. of #1129, ⁺¹¹²⁵ sand
forae, with many wide-angled specimens,
abundant alive & also dead shells of *Solen*,
Crepidula spinosa, etc. *Hammica* & 1 *Senecle*
Many of the *Lerithidae* are corroded, as
with acid. Manufacturing has been carried on
along the shore at and S. of National City,
suggesting a source of acids, as does also
the algae alongshore, but all the
Lerithidae are not affected and other
shells, such as are mentioned above, with
Togdus, are not affected. *C. v. hypolynea*
should be considered a good variety until
it is shown to be an environmental result.

Jupiter Valley, Calif.

March 27, 1935

Sta 1132, along highway bet. West-
morland and Jeddah. *Hydrobia*, *amnicola*,
Physa humerosa & a few small *Helicomas*.

Sta. 1133, S.W. of Jeddah. *Physa*
humerosa, *Helicoma amnicola*, *Hydrobia* &

Amnicola californiensis (Perhaps
Amnicola longirima, This station is 2 mi
S. of Indio and 1 mi. E. of U.S. Highway 49.

Visited One Thousand Palms Canyon
& photographed palms (*Neowashingtonia*
filifera Sudworth, 1908, who says, ^{in footnote} this
var. *robusta* Parish. ¹⁹⁰⁷ Macneil gives it as
N. filamentosa (Woodland) Sudworth, but
Sudworth, 1908 in footnote says Parish
says grave doubt as to what Woodland
really described. Washington, Desert or
Fan Palm, T_p. 1 to 5 N., R. 1 to 8 E.

Imperial Valley, Indio

Sta. 1134, mud flat 3 mi. S. of Niland.
Hydrobia protea Gld. Nothing else
also at Salipatria

3 94 mi. W. of Kane Springs, Colorado,
Physa & *Hydrobia*, not collected

Sta. 1135, 9 mi. W. of Kane Springs,
same spp., also *Amnicola*, near sea level

Probably *Amnicola* occurs at most
stations examined, but easily overlooked

Florida Trip - 1935

Boulder, Colo. Wednesday

~~June~~ Oct. 2, 1935

Left Boulder 9 a.m. Speedometer 2291.5

Lunch at Bobred Springs.

Night at Swastika Hotel, Paton, N. Mex.

Warm day, not hot.

Paton, N. Mex.

Thursday, Oct. 3, 1935

Drove to Albuquerque, Francisca Hotel.

Warm, not very hot.

Albuquerque, N. Mex.

Friday, Oct. 4, 1935

Rained toward morning.

Warm forenoon

Socorro at 11 p.m., lunched at Val Verde

Hotel 11:30

San Cruces, N. M., 5 p.m. Hot after

Mulberry Camp - not very good.

Hot afternoon. Rained S. of Socorro.

40 mi. gravel S. of San Marshal + 20
mi. S. of Hatch - otherwise oiled all way
from Boulder.

Las Cruces, N. Mex.

Saturday, Oct. 5, 1935:

Hot in sun, fairly cool breeze, partly cloudy
Drove to El Paso & through Van Horn to
Pecos, Tex., paved or oiled except 30 miles
detours on account of road work.

Boulder cabin camp, excellent.

Club cafe, fine dinner.

Pecos, Texas.

Sunday, Oct. 6, 1935-

In camp all day. Partly cloudy,
hot in sun, cool in shade

Pecos, Monday, Oct. 6, 7

Drove to San Angelo, Partly cloudy,
hot in sun, cool breeze

~~Pecos~~ Grande camp. Excellent.

San Angelo, Tex.

Tuesday, Oct. 8, 1935

Hot in sun, strong, cool breeze, partly
cloudy.

Drove to San Antonio, Blue Bonnet
camp, excellent, S. Presa St.

San Antonio, Texas

Wednesday, Oct. 9, 1935

Drove to Corpus Christi.

Fairly cool forenoon, hot afternoon
Berry Camp, North Beach, excellent.

Corpus Christi, Tex.

Thursday, Oct. 10, 1935

Very hot day, cooler after noon.

Sta. ~~1136~~ 1136. Busycon perversa on
breakwater, small, brought in by hermit
crab. On tide flats Bulimus & Helicina,
both dead, Succinea, some alive.

Old Logside

Sta. 1137. Old Logside, N.E. of Corpus
Christi, on beach, Busycon perversa,
small, ~~occupied~~ and ~~Bulimus~~, abundant,
^{both} occupied by hermit crabs. Crepidula,
2 spp. Chione & Oysters very abundant,
all dead shells, none collected.

Corpus Christi, Tex.

Friday, Oct. 11

a little cooler, rain during night.

Sta. 1138, in road material along
State Highway 9 to ~~Ball~~ Calallen,
8 mi. S. of B. B. dead *Bulinulus*,
Helicina & *Polyzyna*

Sta. 1139, 1 mi. ^{west} ~~east~~ ^{abundant} ~~south~~, live
Bulinulus & *Helicina* on large, flat-
leaved cactus, & mesquite and other
trees, shrubs, etc., on fence posts
& up to tops of telephone poles.

Sta. 1140, 7 mi. N. of Premont on
Alice - Falgoutias road. *Bulinulus*
& ^{dead} *Helicina* on Mesquite, continuing
for several miles southward. A few
taken for ~~the~~ the record.

Sta. 1141, 7 mi. ~~SE~~ ^E of Falgoutias, Tex.,
on road to Corpus Christi by way
of Riviera & Kingville. *Bulinulus* numerous
on mesquite, cactus, fence posts, etc.,
continuing for many miles farther east
& north, one or more on posts at
frequent intervals where there is only
grass and short weeds - no trees nor shrubs.
Dead *Helicinas* wherever *Bulinulus* occurs.

Corpus Christi, Tex.

Saturday, Oct. 12, 1935-

Sta. 1142, bay beach at Aransas Pass,
N. of Corpus Christi, dead shells of
Ostrea abundant other shells less so.
Took some dead *Phacoides* & live hermit
crabs.

Drove to Port Lavaca but found
nothing.

Rained furiously twice.

Hot for noon, cool breeze after noon.

Corpus Christi, Tex.

Sunday, Oct. 13, 1935-

Hot in sun, cool breeze in shade.

Sta. 1143, about 5 mi. S. ^{to E.} of city,
drift along beach, *Polygona* abundant,
Helicina less so, a few *Bulinulus*,
& *Helisoma* all dead shells, a little
farther south, *Bulinulus* common, alive,
seeded to cactuses & shrubs; a few
Helicina & *Polygona* on ground under
leaves, alive, abundant dead.

Corpus Christi, Tex.

Monday, Oct. 14, 1935-

Hot day.

Sta. 1143~~4~~, 1 mile N. ~~W.~~^{SW.} of Sutton on road to Victoria (N. W. of Corpus Christi).
Balanites ^{abundant} & *Heliconia* on cactus, mesquite & other trees & shrubs. They disappeared a little farther along and no more were seen on road to Houston & Galveston.

Mira Mar camp on sea wall at Galveston, fine.

Galveston, Tex., Tuesday,

Oct. 15, 1935-

Hot day.

Sta. ~~1144~~ 1145; rocks at ferry landing; Galveston, *Thais*, *Littorina* & *Acmaea*.

Rice Hotel, Crowley, La. - Excellent.

Crowley, La., Wednesday,

Oct. 16, 1935-

Somewhat cooler, ~~hard~~ shower in afternoon. Drove via Baton Rouge to Gulfport, Miss. Moody's Cottage Camp, fine - on beach.

Miss.
Gulfport, ~~La.~~ Thursday,
Oct. 17, 1935

Much cooler, drove through Mississippi
to Florida.

Philpot's camp at Pensacola, Fla. - Good.

Pensacola, Fla., Friday,
Oct. 18, 1935

Not very hot, drove through
Tallahassee to Perry, Fla.
Dixie Taylor Hotel - fine.

Perry, Fla., Saturday,
Oct. 19, 1935

Fairly cool in shade & breeze. 27405

Reached St. Petersburg at 5 p. m.

Road from Brookville to Gulf coast and
far down coast oiled but very rough.

Large lake at Seminole Camp (N. of
Javeress) & 2 large ones near
Javeress (about 60 or 70 mi. N. of
St. Petersburg).

Several small lakes 9-15 mi. S.W.
of Brookville.

Royal Palms Hotel St. Petersburg - good.

St. Petersburg, Fla.

Sunday, Oct. 20, 1935 -

Hot in sun. Cool in shade

Hunted apartment

St. P., Fla. Mon., Oct. 21.

Weather same

St. P., Fla., Tues., Oct. 22

Weather same

Moved to North shore apt., apt. 1.

325 - 15th ave., N.E.

St. Pet., Fla. Wed. & Th.

Oct. 23 - 24, 1935.

Hot in sun. Last few days have ranged from 86 to 88°.

Beaches so far examined are quite free from live mollusks & fresh shells. Dead, bleached valves abundant.

Sta. 1146, dead shells near coast guard ~~sta.~~ at E. end 22nd ave. N.E. (See Nov. 4)

Sta. 1147, dead *Polygona* spp. about bases of palms, St. Petersburg Beach, on

Long Id. Found none alive. Place had been swept by fire.

All places seen yet in this neighborhood are very sandy - very fine, white sand, with only a thin cover of leaves beneath the shrubs, etc.

St. Petersburg, Fla., ~~Saturday~~ ^{Friday}
Oct. 25th, 1935

Hot sun, very cool breeze

St. Pet., Fla., Saturday
Oct. 26, 1935

Sta. 1148, beach at Passa Grillo, Long Id., near city. Keyhole sand dollars under palms, *Polygona*

St. Pet., Fla. Nov. 1, 1935

Sta. 1149. foot of 6th ave., N.E., Malaga corona, feeding on oysters, *Lucina* & keyhole urchin. *Littorina angulifera* Sav. on sea wall. ~~St~~

St. Pet., Fla., Nov. 2,
1935

1147

Sta. 1150, Gulfport a suburb of

St. Petersburg, on the Gulf. *Modiolus*,
Littorina, 2 spp., largest on posts, others
on shrubs, both at high tide line.

various other sp. on beach. Very small
barnacles (elongate transversely) on
"thatch" (grass) and shrubs at high tide ^{line}.
No large barnacles found except one
Melobanus in water

St. Pet., Nov. 4, 1933.

Revisited Sta. 1146, E. end 22nd St. S.E.

Nassarius, *Colymbella*, *Melobanus*, *Polinices*, etc.
in shallow water near low tide. *Polinices*
buried in sand just above tide water,
near high tide line.

St. Pet. Nov 5, 1933.

Sta. 1151, foot of 15th ^{ave} St. S.E., on
remnants of old breakwater, *Ostrea*;
Mytilus within clusters of *Ostrea*.
Littorina on shrubs at high tide.
Barnacles on grass.

St. Petersburg, Fla.

Nov. 14, 1935

Boiler, with rain, Max. 79°. Has ranged from 82 to 86 or more ever since we came. Had collected nothing since the 5th because of poison oak affliction.

Sta. 1152, along sea wall at foot (east end) of 5th Ave. S. - *Melongena*, *Buysson*, *Fasciolaria*, *Littorina*, *Ostrea*, *Modiolus*.

St. Pet., Nov. 5, 1935

Sta. 1153, bridge leading to Pass-a-Grille. *Melongena corona minor* and *Buysson pygmaea*.

St. Pet., Dec. 16 & 18, 1935

Sta. 1154, Madeira Beach, near St. Petersburg, shells, sponges & gorgonians abundant after big storm.

St. Pet., Jan. 13, 1936

Revisited Pass-a-Grille. No. of 1148 about 2 blocks, found the introduced *Helix* *laxa*.

On same ~~low~~ key (Long Key) about 1 mi. N.
of St. Petersburg Beach, (Sta. 1147). *Plyssa*
umbifera + *concolorata*.

St. Pet., July 16, 1936
Sta. 1155; Treasure Id., near St.
Petersburg. on Gulf Coast.

Sta. 1156 St. St. Pete., Mch. 21, 1936
Indian Rocks, on Gulf coast, N.E. of
St. Petersburg.

St. Pete., Fla.
Mch. 26, 1936
Sta.
1157, Cabbage Key, near Pass-a-Grille,
S.W. of St. Petersburg, Fla. Land and
marine mollusks

Professor Henderson returned to
Boulder in May, 1936, and after
a long and painful illness, died
on November 4, 1937.

Hugo S. Rodeck