

STUDENT

FILING COVER

To Bind Completed Matter



Course given by

SUBJECT:

End of Harri. de Guacis
1st traveling trip.

For the

NATIONAL SEPARATE-LEAF NOTEBOOK

Patented by E. W. Hill, July 5, 1898.

May 1st Came in bright & clear with
light N breeze. At 6.30 AM. a
steamer passed up to an anchorage
near Osborn's float, and immediately
began to load herring & jammed down fully
loaded. ^{Finished at 3.30 PM}

Mr. Glennon states that Mr. ^{J. E. Holley}
who owns the pound on Stump Point,
took 200,000 herring on Saturday
& Sunday, all of which went into
the steamers.

Went over to Coulihan & Hogan float.
Got there 1 ripe ♂ rock 2 1/2 cm.
& ♀ glut. & 3 herring (spots.)

The haul was 200 bbls glut
@ 500 to the bbl. They had to
use the "rigger" seine. Also had
20 shad, 20 rock mostly small, and
a very few white perch

It is reported that 7000 shad, caught in pound nets in the lower bay, and delayed in arrival at market in Baltimore, were sent to Redville in a fish steamer, and ground up.

This was told me by a giller, who said the steamer captain told him. It must be taken with a grain of salt, but indicates the conditions.

The same man accounts for the number of herring in the past few years, by saying that the pound nets are "regular hatching boxes for herring", and that when there is a run of herring in warm water, and the water right, the

netting of the
pounds will be found covered
with herring eggs.

Capt. Hamlen reports sharks of
large size as of not uncommon
occurrence about the battery, and
says they follow a good run
of rock fish. He specifies the
occurrence of 2 large ones in
June, a few years ago, when
they drove away the rock.

Made 1 haul in outer basin with
the 45 ft. seine. Took 2 gibbosus
2 menidia, some *Fundulus diaph.*
(+ *majalis*?), 1 small eel & ^{several} darters.

After lunch made 1 outside,
& 1 inside haul. - Outside, a
few darters & a couple of
gibbosus. Inside, about 50

gibbosus, 25 yd. perch, 1 *Notropis*,
1 glaucus, & several small
eels.

Also took some small
notropis(?) with dip net.

Radcliffe came down in the
afternoon.

May 2nd Day came in warm
& clear with light S. W breeze.
left early with Radcliff in the
power dory, towing a boat for
Swan Creek. Went up to head
waters & made collections, notes
later. Add. *Cat. nigricans* (seen)
2 l in black bass, & eels.

Returned to Battery for lunch,
& afterwards went to Coulahan
& Hogans float, inspecting the
cutting & roe canning. Then
to (the little) float, & saw
a haul of ~~15000~~ 15000 herring
(glut) 1 shad & 1 small rock.
Thence to battery, making
many hauls, notes later.

Mr. Glennon went around
the lay boats, & reports 3
steamers loading everything from
the pounds on the W. side of
Elk rock. It was low tide,
& he saw thousands of
white perch gilled hanging
in the pounds.

He also saw ^{Michael} Mitchell,
(shore seine #2 below the

battery, who said he had
1000 bbls of herring or more
today. Most of these go to
the steamers

At 6 AM ^{of the 3rd} he had
hired a schooner ^{A. Booth} and was
towing her down to load
her from this one haul.

May 3rd Left the Battery
with Radcliffe in the
Canvas back at 6 AM.

~~1 str loading off Vardiners.~~

3 str in sight up the NE,
and Str Northumberland (?)
loaded to the waters edge off
Michaels, and still taking
fish. ~~One of these f.~~

6.40 AM One of the 3 up
the NE River passed out fully
loaded, and another was in
sight coming up.

Arrived Frederick 8.45 AM.

Seined around here, & later
in Turner's Creek.

1st bucket Herring in Sassafras

32.5 - 30.5 - 29 - 28.5 - 31

31 - 31 - 28 - 29 - 30.5

35 - 32 - 31 - 30 - 31.5

27 - 29 - 31 - 32 - 33.5

30 - 31.5 - 32.5 - 29 - 30

16 lbs weight

2nd bucket

31 - 28 - 32 - 33 - 32

31 - 30 - 31 - 28 - 32

31.5 - 33 - 34.5 - 30 - 30

31 - 31 - 29 - 31.5 - 29

29 - 30 - 31.5 - 31 - 29.5

15.5 lbs weight

Nets #
Saw 1. 3 traps - out from shore
25 T 20 T 20 T (10 ft to 8 ft.)
single heart 2.

#2 2 traps ~~had~~ loading buyers for ^{Butt} ^{cambers}
had about 5000, says no
shad. a pretty clean haul ^{2.25 - 80-90}
all glut. Says very few
fish yet. Meas. & weighed
50 fish 3 shad

#3 4 traps 2. 30 T 20 T 20 T 20 T

#4 5 " 2 @ 20 each.

#5 3 "

#6 1 " #12, 5 traps.

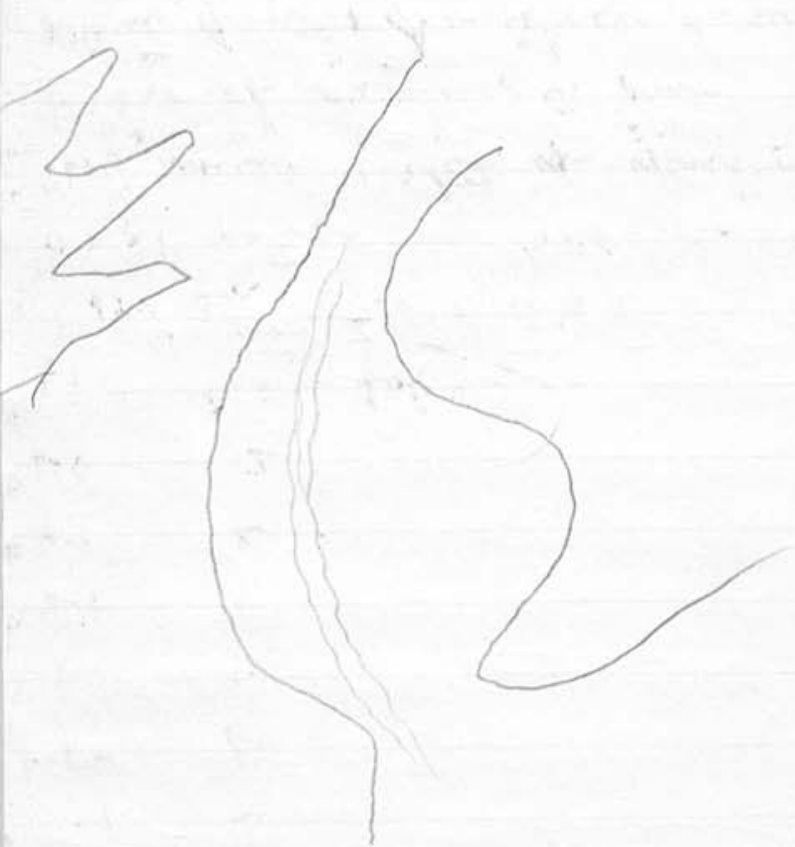
#7 2 " #13 1 "

#8 1 " #14 1 "

#9 1 " #15 3 "

#10 1 " #16 1 "

#11 2 #17 2 "



- | | | | |
|------|---|------------|---|
| # 18 | 2 | traps | |
| # 19 | 1 | " | |
| # 20 | 2 | " | Says both herring
& perch very scarce. |
| # 21 | 3 | " | |
| # 22 | 2 | " | |
| # 23 | 2 | " | |
| # 24 | 2 | " | |
| # 25 | 2 | " | |
| # 26 | 2 | " | |
| # 27 | | hedge fyke | |

(1/4 top. 3/4 bottom.)

40 ft pound. Had a

very small catch of glut @ 500
 & hanch herring, a few
 white perch (practically none
 killed), 1 white cat, a few
 yellow perch, hog choppers,
 gibbons, notemigonus etc.

Says he has caught a few
 fish which he describes

and which must be either
craffie or strawberry bass.

28 hedge fyke

29 6 traps 35ft each + 30 ft ant
{ 20-T-20T 20T 20T 20T 20T

30 5 traps about same as above

31 4 " " " "

Stn. ^{Wm. S. Brewster} leaving Betterton,

loaded, but going up the
Sassapas for more.

Another going down river
loaded.

Went into Betterton +
looked the place over.

Then across to Stony Point, where
a haul seine is operated.

600 + 800 yds rope 15 ft deep
400 fath seine

$$\begin{array}{r} 3(2200) \\ \hline 6600 \end{array}$$
 ~~Wm~~ Moore +
30 men. Mitchell.

3 P.M. to 4.30 low tide haul

Had 20 ^{total \$7} had 3 fish

75 small rock 15 maxostoma

1 quill-back 2 Hickories

A few yellow + white perch

3000 herring (15% branch)

20 small lampreys 6 white cats

20 nebulosus, ^{few gibbous} Meridia

& hyboquathus came in

with the net

A bad tear had let out most of
his fish

Says he has taken several small ones

"bug-fish" this season, also several
big lampreys

At Michaels & Seine, were 2
steamers, but waiting for more fish
fully loaded. The schooner
loaded this morning had gone
out. His seine was anchored
off the shore, full of fish,
and his men had gone to
supper.

Vandivon was landing a
very large haul, & ~~his tug~~
~~was waiting to take them out~~
~~to the steamer.~~

Culahan & Hogan also had
a very large haul,

Arrived battery 5:45

May 4

11 A.M.

Charles Silvers seine
above the island 15000 heaving
~~4000~~ 10% trawch, nearly
all hord - a clean haul
17 shad. + a very few
white perch - inconsiderable.


Spencer (a Silver) had
a fair haul of glat with
a few shad - got 1 may
shad here.

4 x 500 fath (now 750 yds
35-ft dept, 5 man than the
water.

2 yrs ago 1 shad 11 $\frac{1}{4}$ lbs.
Sent 5 to Balt = 51 lbs.

Roe to river
breed.

Show float Spencer's brother,
All three series Spencer & Silver
Silver fishing here 5-5 years -
Makes 7 to 9 hauls, daytime
only.



Sunday May 5th.

Cloudy with E. winds.

Over hauled fish &
potted around.

May 6th.

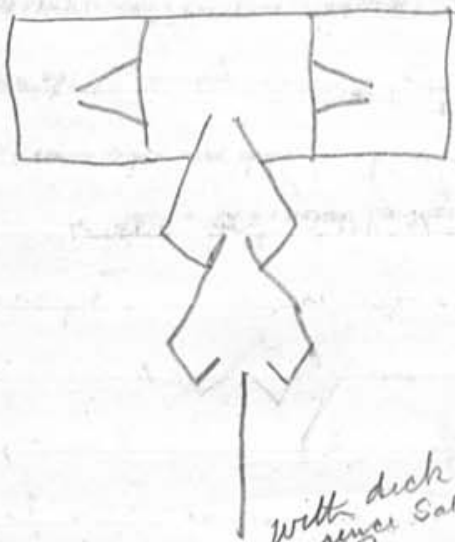
Left Battery 4.45 AM in the
Plover. Rained all night, + day
came in cloudy and warm with
showers. Then thick fog, which lifted ^{somewhat} at 11 AM.

1 Schu loaded off Vandiver,
1 Str " " Turkey Pt.

On the mountain shore 6 AM the
men were just coming out to
fish the traps, ~~but had no~~
~~phenomenal run of herring,~~
~~as they did not show up in~~
~~the nets.~~

1st net above the first lay boat
had the outer pound full of
herring, also saw 2 shad.

Purms net (1st double



with deck load - three
since Sat. waiting for
fish str to town

1 Schr loaded Red Pt.

1 Str J. A. Palmer fr. 1/2 loaded

Double found at Red point
had onto trap solid with
herring.

The lay boat at Red Point
reports a very heavy run of
glut herring in the pounds.

of this region, all of which is loaded on steamers and schooners for the factories.

Only a small amount of roe is put up at this point.

Double pound above the layboath her solid with herring in the upper pocket. All these nets, however, had been in the water since Friday.

Got back to the Battery at 8.30 Am.

Left Battery 9.30 Am for H. de G. to pick up some "may shed" if possible. Did not find any. ~~Osterme has given up,~~

~~and is taking home his float.~~

~~Express the opinion that the herring season is over.~~

1.30 P.M. left Battery in dory, went
around Spessultie Id. No
pounds inside. Passed
Michaels seine 2.30 P.M. nothing
doing, & squall coming up, so
did not stop. 1 Str & 1 Schie
loading here, & 1 Str going
out of the Elk loaded.

~~Vapdivius was not fishing either,~~
but ^{Vapdivius} his scow was coming in
from the steamer, and he was
just landing a very small
catch of herring.

Coulahan & Hogan had
about 30,000 herring in
the haul I saw, with 20
shad, several small rock,

White cats, and 1 ♀
rockfish (hard) 96 cm long,
weight 23 lbs.

1 ♂ ^{rock} ripe 4 1/2 lbs 57 cm.

1 ♀ carp. 25 lbs. 91 cm

Dave Fisher ~~had~~ said he was
having better luck with the
herring, which is not much.

Bought 2 shad, as follows

♂ 55 cm. 4 1/2 lbs

♀ 60.5 " 6 1/2 lbs.

Left Battery at 6.30 P.M. ^{in #21} went
to ~~the~~ ^{J. Demond's} float. ^{a schooner which came}
was nearly loaded (7 P.M.) ^{to him light this morning}

Conlahan & Hegan on their last
haul today caught 150 shad
1. 25-lb ♀ rockfish, and about
60000 herring

Osborne told our spawntaker that he would not fish another year with such a crew as he has this year (mixed white bums) but would get a crew of negroes from Reedville. It is a matter of common repute, that the factories are financing, in whole or in part, this scine-

Osmond fishes 750 fathoms 15 ft deep. This haul was wretched, consisting of 2000 herring, 2 ♀ shad, (hard) 1 small rock fish, and a few small white perch. He says that he got out late, had many bad hangs, and that the season is for him a failure. Only had 2 or 3 good days.

Got back to Battery 8 PM.
(a pretty good day 4.30 to 8, 16 hrs)

May 7. NE Wind with fog +
rain. Left Battery in Canvasback
6.15 AM. 2 Stos & 1 sch

off Vandiver - Michael, &
1 str. outside Turkey Pt. ^{→ labore,}
✓ 1 coming out of the Elk
✓ 1 coming up the bay

Saw bald Eagle at Turkey Pt.
Net #1 (repairing) says herring
falling off.

Water in the Elk still full
of yellow mud.

St. Joseph Wharves at anchor
off Bohemia Pt taking fish
from 2 scows. By the
appearance of the scows
they could not have more
than 5000 herring each.

Another Str. at anchor off
the mouth of the Bohemia.

John Fatty says the herring
are over. Had only 2000
out of 3 traps. Also
3 shad, 6 white cats (1 giant,
kept), and 2 or 3 rockfish,
with about 100 white perch of
market size. Saw him
throw over 100 small gilled

perch out of 1 trap.

Str Rappahannock of Redville at anchor off Back Cr.

Str Wm. S. Brusstar of Redville (prob one seen in river below) came up the Elk just above Back Cr. at 9 AM. The other Str at Bohemia was the (D. W.) mechanical of Fairport, Va.

Very few of the fishermen working, prob. owing to the weather, & the Strs. seem to be doing little business.

10 AM. Str Potomac of Redville passed up the Elk off Grinders Whf.

On coming out of the Elk 1 str was visible along Elk neck, & 2 off Michaels-Vandivers.

8 str in sight altogether, & prob more wh the NE + Sae.

In the afternoon it blew and rained so hard as to prevent further outside work. A steamer passed up to Osmonds, and a power fishing smack, rigged like the steamers & painted white went up to H. de G.

Key to Raja



A Middle line of back & tail behind shoulders unarmed in adult: outline of disk behind spiracles obtuse, with acute angle at tip of snout. - round dark spots

b. teeth 50 series, size small Erinacea ✓

bb " 90 " - large, usually pectoral ocellus

Ocellata ✓



AA. Middle line of back with row of spines in adult

c. angle of snout short, obtuse, teeth 30 to 50 series

d. body & tail with large bucklers,

each with radiate base radiata ✓



c.c. Angle of snout acute, moderately long
e. spines on skin above scarcely stellate
teeth 50. brown with ^{dark markings} Eglanteria ✓

e.e. spines on skin above small, their base stellate. teeth in @ 40 rows, brown, with sometimes 1 or 2 paler spots Senta

c.c.c. Angle at tip of snout much produced, blunt at tip, teeth 30, skin nearly smooth brownish, with paler spots.



laevis

Measurements of Monk fish - not
uncommon size June 22 Georges
Bank

Length 46 inches

Dist across pectorals 39 "

" bet. max tips 14 1/2 "

Length 1st d. ant. 8 1/2 in

" 2nd " " 12 1/2 "

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for various Subjects

— OR —

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TO BIND COMPLETED MATTER

For the ❁ ❁

**NATIONAL
SEPARATE-LEAF NOTE BOOK**

Patented by E. W. Hill, July 5, 1898.

Course given by _____

from _____ to _____

SUBJECT:

Subject

#36 shot at 1 P.M. 36 F
N.N.W. hauled at 3.10 P.M. 40 F
2 1/2 chickens.

1 Wolf-fish ✓ 1 halibut ✓

9 Monk fish ✓

150 Dog fish ✓

24 skates ✓

120 Cod ✓ 7 small - over dead ✓

1100 Haddock ✓ 15 " " "

7 Hake ✓

#7 Pottocks ✓

175 Silver hake ✓ mostly small

20 squinels ✓

70 flounder ✓

37 Sole ~~45 small ones 2/3 dead~~

7 gurnard ✓

20 sculpin -

3 Robin ✓ 1/4 bush stars

20 Scallops 18 mussels ~~12~~ ¹² ~~to take~~ ^{probing}

35 10:25 AM 42 fath.

towed S, S, W. Hauled at noon 36 F.

Many hydroids stuck in the net.
2 checkers

- 1 Wolf fish ✓
- 1 Pollack ✓ 1 whale 1/2 mile off
- 40 Dog fish ✓
- 18 Skate ✓
- 45 Flounder ✓
- 25 squirrel ✓
- 100 silver hake ✓
- 14 cod ✓ 7 small ones overboard
- 700 haddock ✓
- 3 hake ✓
- 24 Sole ✓ ~~5 small overboard~~ a few young
- 2 Sculpin ✓
- ~~gusnow~~
- 7 monkfish ✓ 3 quobogs

34 Shot at 8.20 AM 38 fath -
SW by S. Hauled at 10 AM. 42 fath.
1 1/2 checkers

- 125 dog fish ✓
- 15 skate ✓
- 1 wolf fish (4 ft) ✓
- 65 flounder ✓ mostly small, 1/3 over alive
- 4 sole ✓ ~~2 small over dead~~
- 5 monkfish ✓
- 175 silver hake ✓ mostly small
- 20 squirrel ✓
- 800 haddock ✓
- 14 cod ✓ 3 small over dead ✓
- 4 hake ✓
- 3 sculpin ✓
- 4 gunnard ✓
- 1 robin ✓

✓ 2 mackerel
✓ 11 scallop. a few stars

#33 set at 6.10 AM 43 fath

towing N. Hauled at 7.45 Am. 37"

At this time Sahr. Gladys & Nellie
Boston, starts to put out dories $\frac{1}{2}$ mile SW
& at 8 AM starts setting within $\frac{1}{4}$
mile, while we are hauling.

100 Dog fish ✓ ^{2 checkers} 8 butterfish (1, 1 $\frac{1}{2}$ in.) ✓

2 Wolf fish 4# each ✓

8 Mank ✓

35 flounder nearly all very small

20 Skate ✓

~~Squid~~

30 White hake ✓

900 Haddock 7 small ones over dead ✓

1 hake ✓

7 cod 5 small ones over dead ✓

5 sculpin ✓

3 Gurnard ✓

✓ 2 scallops

✓ 1 quahog

o very few stars

32 Shot at 3.30 AM 35 fath
N by W. hauled 5.05 AM 35 fath.

Clear & calm, light W air.

2 1/2 chickens

haul.

1 ~~glut~~ herring ✓

~~225~~ dog fish ✓

40 skate ✓

65 flounder ✓

60 silver hake ✓

3 ~~squid~~ squid ✓

7 monk fish ✓

15 cod ✓

800 haddock ✓ 4 small overboard ✓

4 hake ✓

6 sole ✓ ~~4 small overboard~~

15 sculpin ✓

6 gurnard ✓

1 wolf-fish 4 ft. ✓

holothurian ✓ 4 scallops
3 anchovy 1 fish stars
a few winkles

#31 1.35 AM^{1/2} in 32 fath.
N ~~NNW~~ Hove in at 3 AM
in 35 fath' 1 checker

2 Halibut 1, ~~4~~ 1, 6ft

35 skate ✓

20 dogfish ✓

8 quonard ✓

18 sculpin ✓

50 flounder ✓

40⁺ white hake ✓

~~squid~~

~~hake~~

~~cod~~

325 haddock ✓

1 monkfish ✓

34 sole ✓ ~~small, overboard~~

1 holothurian 4 quahogs ✓, a few hermit
1/2 bushel starfish 6 winkles ^{crabs}

June 23.

430 set at 11:10 ~~P.M.~~ ^{P.M.} 39 fath
towing SSE Hauled at
12:45 AM in fath.

3 ✓ wolf fish ^{2.4 ft} 1, 2 ft ✓ 1 lobster ^{buried} ♀
10 cm

14 dogfish ✓

35 skate ✓

120 flounder ✓

40 white hake ✓

25 squirrel ✓

✓ 200 haddock 15 small ✓ overboard

11 cod ✓

3 monk fish ✓

14 sculpin ✓

4 sole ✓

1/2 bush starfish

13 scallops ✓

29 9 P.M. Shot port
net in 42 fath. Hauled
at 10.45 P.M. ^{39 fath} checker
Calm moonlight

- 5 Monk fish ✓
- 28 Skates ✓
- 30 dogfish ✓
- 8 hake ✓
- 300 haddock ✓
- 30 cod ✓
- 65 flounder ✓
- 100 silver hake ✓
- 15 squinels ✓
- 2 sole ✓
- 6 sculpin ✓

5 scallops
1 peck starfish

28. 7.40 P.M. 56 fathoms
S by W. hauled in 38 "
at 8.15 P.M., a/c the net
being foul about the forward
door.

Water haul, the net
with several turns on itself.

Took in stbd net
& got ready port.

27 3.10 P.M. 37 fath. net
turned over, ^{was torn} took in and ^{revised} shot
again at 4 P.M. The net
going wrong was taken in again,
and shot again. Shot again
at 4.30 P.M. ^{40 fath.} towing N.E.

Hauled at 6.05 P.M. in 25 fath.

~~200~~ 20 [#] ~~haddock~~ ✓ 1 sea robin ✓

16 Monkfish ✓

50 Skate ✓

75 Dogfish ✓

~~400~~ ⁷⁰⁰ Silver hake ^{few large} ✓

150 flounder ^{1/4 large} ✓

8 Sole ✓ ~~3 small overboard~~

60 ⁴⁰⁺²⁰ cod 20 small overboard ^{1/2 good}.

~~100~~ ¹⁰⁰⁰ haddock ✓

4 hake ✓ ✓ 18 scollops.

40 Scalpin ✓

some sponge
wrinkles + hermit
crabs.

26 12.55 P.M. 40 Fath.

net turned over, hauled back
Sawed again 1.15 P.M. Hauled
at 2.50 P.M. in 37 fath.

2 checkers full

1 wolf fish ^{3.5 in} ✓ 1 halibut 4 ft ^{12 in} ✓

60 dogfish ✓ 1 ~~branch~~ ^{branch} herring ✓

30 skates ✓ 1 "buff sculpin" ^{2 in tank} 12 in ✓

70 squinids ✓

500 silver hake ^{mostly small} ✓

175 flounders ^{1/3 large} ✓

4 sole ✓

500 haddock ✓

14. hake ✓

20 cod ✓

30 sculpin ✓

7 monk fish ✓

The long delay owing
to net trouble killed
practically all the
discard.

¹²
~~1/2 bush~~ quahogs ✓

1/2 bush sponges + stars.
20 scallops ✓

#25, 10.30 Am. 38 Fath,
towing N. hazy + calm
Hauled at noon in 43 Fath.

2 duckers full

8 butterfly ^{10 in} ✓ ~~tophuran~~ lycodes ✓

2 Pollock ✓

1800 Haddock ✓

8 Hake ✓

200 Silver hake ✓

~~168~~ 3 squinels ✓

3 Cod ✓

90 ^{large} ~~100~~ flounder ✓ 2/3 witches

5 Sole ✓ ~~about 30~~ ~~14 small~~ ~~over~~

12 Monkfish ✓

20 sculpin ✓

14 dogfish ✓

18 skate ✓ 1/2 bush starfish

8 scallops ✓ ²⁰ ~~1 fish~~ quohogs

ended in macaroni

2 1/4 to 3 3/4 in diam.

June 22nd at noon 16 quohogs were thrown on the deck in a warm spot & left until the 25th at noon, when 3 were still alive. This included a day roasting in the sun at T wharf.

June 20th at 6 AM. 2 quohogs were thrown on the deck in a warm spot. On the 21st they were as fresh as when taken, and at noon on the 22nd, although rather dry-looking about the mantle edges, responded immediately to external stimuli by closing their valves.

Use either as an
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To subdivide and index the leaves
for various Subjects

—OR—

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TO BIND COMPLETED MATTER

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**NATIONAL
SEPARATE-LEAF NOTE BOOK**

Patented by E. W. Hill, July 5, 1898.

Course given by 

from to

SUBJECT:

#24

8.15 AM Trawl net 30 feet

S.S.W

Calm, bright + hazy, with
light N air, Hauld 9.30 AM, 33 feet

1 Pollack ^{34 in} ✓ 1 Wolf fish ^{37 in} ✓

~~40~~ dogfish ✓ 2 plaice ✓_{F.}

200 silver hake ✓ 1 cunner ✓

18 skate ✓

50 sculpin ✓

75 squirrel ✓

44 sole ✓ ~~26 small - over 2 in~~

6 cod ✓

200 haddock ✓

8 monk fish

2 hake ✓

30 flounder ✓

+26
✓
56

a few quohog (5 or 6) ✓ + sea urchins

23 51 E ^{by S} / 3.55 AM
hauled 4.20 AM 40 fath.,
6 rose fish ✓
15 hake ✓
20 haddock ✓
70 flounders (1/2 witches)
10 silver hake ✓
3 cod (1 4 ft) ✓
40 dogfish ✓
21 skate ✓

A few starfish, sponges & wrinkles
1 scollap ✓ 1 quahog ✓

Nearly all flounders went
over alive. ♀ witch flounder nearly
ripe with eggs running.

Took 2 samples of nearly hatched eggs
which ran free from the vent of a
♀ *Sebastes marinus* 33 cm long.
(20% formalin)

21 11.15 P M to 1 AM
1 1/2 checkers

June 22 smooth sea W. breeze.

22 2.00 to 3.25 AM.

41 F. NNE ^{4 miles} hauled in 51 F.

Small haul, less than 1 checker.

165 flounders ✓ mostly small (nearly all over aloe)

80 dogfish ✓ 15 witches

28 skates ✓

2 monkfish ✓ 1 rosefish ✓

20 squirts ✓ 1 sole ✓

150 haddock ✓

2 hake ✓

30 silver hake ✓

3 cod ✓

a few starfish & sponges, + 6 ✓
scallops

20 9 P.M. 35 fath. SSW
hauled at 10.40 P.M.

(Small in fold wing.)

Net badly snarled. A small haul, less than $\frac{1}{5}$ of the last apparently in the same proportion. Not worth losing sleep about, so turned in.

✓

(not half the last haul cut)

79th

6.45 PM 26 F. N

hauled in 38 fath, at 8.25 PM

- 300 Gags ✓
60 Skates ✓
1200 haddock ✓
11 monk fish ✓
70 flounder ✓
17 sole ✓
6 hake ✓
100 silver hake ✓
75 squinels ✓
50 sculpin ✓
1 halibut ✓ (2 ft)
15 cod ✓

P. dentatus

71 cm.

1 plaice 28 in -
big jaw, left hand.

20 scallops ✓

a few hermit crabs

18 4.25 P.M.

NNE 34 fath.

Hauled at 5.45 in 55 fath.

The best set yet

- 11500 fine large haddock ✓
- 1 ophiuran ✓ (congo eel) (cat-fish)
- 250 dog fish ✓
- 25 Skate ✓
- 150 silver hake ✓
- 90 squinid ✓
- 75 flounder ✓
- 5 mantis fish ✓
- 15 hake ✓
- 60 cod ✓ (about 25 small ones overboard)
- 23 sole ✓
- 25 ✓ scallop & a little sponge

17. 1.50 P.M. 27 fath
towed N until 3.15 P.M. 60 fath.

The best haul so far, ^{alive in good} shape.

dogfish 150 ✓

skate 20 ✓

60 flounder ✓

250 silver hake ✓ biggest 60 cm = 24 in.

50 squirrel " ✓

1000 haddock ✓

45 cod ✓ biggest 4 ft long.

8 hake ✓ 2 whale 1/2 mile

4 monkfish ✓

5 sole ✓

Scallop 17 x 15 cm.

Haddock in this haul full of
sand lance.

16 noon. 36 fath set N by W
12.35 P.M. net closing up
was hauled

Dog fish haul

400 dog fish ✓

180 haddock ✓

1 monkfish ✓

75 white hake ✓

15 skates ✓

3 cod ✓

20 flounders ✓

6 squinels ✓

2 scallops ✓

1 quohog ✓

Post net was stowed, & other made ready,

#15

9 AM ^{38 fath.} clear light S breeze

W.S.W. 10.20 AM hauled

~~The bottom~~, both wires together. Net had turned over & put 2 turns in the after wing.

44 fath.

Dog shark haul

750 ✓ ✓ sea robin

60 skates ✓ ✓ mark fish

175 flounders ✓ 1/2 large

(1/4 witches

5 Cod ✓

18 Sole ✓

200 haddock ✓

6 hake ✓

30 silver ✓

15 squibs ✓

1 peck starfish ✓ 2 quahog

5 scallops ✓

14 7 A.M. 52 fath. E.

Seln with dories out 3 m. W.

8 A.M. hauled 30 fath.
 4 miles

dog fish haul.

1 boat anchor.

7 young dogs out of 1 4 ft ♀

700 dog-fish ✓

200 flounders ✓ (1/2 large)

~~75~~ skates ✓

97 soles ✓

500 haddock ✓

15 cod ✓

20 hake ✓

200 silver hake ✓

150 squinob ✓

30 sculpin ✓

7 monkfish ✓

5 or 6 quahogs ✓

1 bushel starfish a few sponges

13 4.05 Am 36. fath

5.35 Am 34 fath foggy & bright sun
6 miles

1 Halibut ✓ 3 ft.

75 dogfish ✓

60 skates ✓

170 flounders (1/2 large) ^{1 in 10} "witches"

8 monk fish ✓

600 haddock ✓

6 hake ✓

75 silver hake ✓

80 squinels ✓

20 sculpin ✓

37 sole ✓

12 Cod ✓

25 Scallops ✓

4 quohogs ✓

Heck Starfish a few sponges

900 haddock ✓

7 cod ✓

50 silver hake ✓

15 hake ✓

40 squirrel hake ✓

250 flounders ✓

26 sole ✓

25 sculpin ✓

Star fish 1 bushel

12 scallops ✓ 5 quahogs ✓

a little sponge

a few snail eggs

11.

1 5 mile haul

Dark & foggy. Did not
get out to see it.

about 11.45^{pm} to 1.15 AM.

✓

Foggy from midnight

June 21st

12. 1.30 AM. 2.50 AM
E. 37 fath

1 halibut ✓ 3 ft bin. ^{5 miles}

18 monk fish ✓

130 skates ✓

~~24~~ dogfish ✓

36

10. 10 P.M. 30 fath.

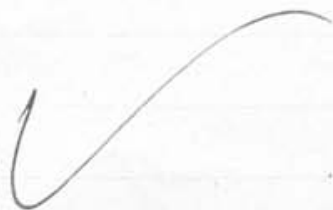
E.N.E. hauled 11.30 P.M.

in 31 fath.

The lee dories of schu- before mentioned are reported to be out 2 miles to the westward.

This haul was apparently like the last, but with the forward light gone, the light was so dim as to render a detailed examination impossible.

Clear & dark with light breeze & moderate sea.



#9 7.25 PM, 38 fath.
hauled 8.50 P.M. Same ground
Towed NE to 55 fath.!

- 50 Skate ✓
- 9 Monkfish ✓
- 500 haddock ✓
- 100 flounder ✓
- 40 dogfish ✓
- 15 sole ✓
- @ 20 cod ✓
- ~~600~~ hake ✓
- ~~30~~ ^{not} silver hake ✓
- a ⁵⁰ few squirrel ✓
- 1 bush starfish
- a few scallops ✓

The forward light went out,
making this estimate very rough

#8 5.P.M. Same ground
Towing E. 6.25 P.M. 5 miles

- 250 dog-fish - ~~small~~ ^{many} large ✓
300 flounders ✓
9 monk fish ✓
100 squirrel ✓
150 silver hake ✓
40 skate ✓
400 haddock ✓
5 cod ✓
8 hake ✓
43 sole ✓

~~5 cod~~

- 5 scallops ✓
a few quohog shells
about 20 starfish

#7. 34 fath. 2.30 P.M.

~~ENE~~ ENE 37 fath. 3.45 P.M.

same ground as last. 5 miles

Set to W. dist 5 miles, dories out.

700 haddock ✓

500 ^{silver} hake ✓

325 flounders ✓ 1/2 large

12 monk fish ✓

30 skates ✓

50 dogfish ✓

75 squirrel ✓

16 sole ✓

12 cod. ✓

a few hermit-crabs, sponges + geodog shells

The number of small haddock & cod taken so far has been negligible.

#6

Lat. 41.40

11.55 AM

~~W.S.W.~~ E by N

set, 28 fath

hauled 1.25 P.M., 39 fath

5 miles

300 flounders ✓ 1/2 large

25 squinels ✓

~~200~~ haddock ✓

30 cod ✓

48 sole ✓

60 dogfish ✓

30 skate ✓

4 monkfish ✓

200 hake ✓
silver

5 set at 9.30 Am. S. by W
40 fath, to W by S. 11. Am hauled
17 goose fish ✓ } 6 miles
1 bush star fish
70 dog-fish ✓
60 skates ✓
300 hake ^{silver} ✓
125 squinels ✓
~~400~~ ³⁵⁰ haddock ✓
13 Cod ✓
2 sole ✓
250 flounders ✓ 1/3 large
8 scallops ✓
6 quohags ✓ (many shells)

#4 Set at 7.30 AM in
45 fath. Weather calm &
cloudy. Running NE $\frac{1}{2}$ N
Cleared at 8 AM, 6 miles
Surface temp. at 8.25 AM, 53°

Taken up at 9.05 AM

50 dogfish gilled & thrown out
before boating net.

1 Wolf-fish ~~4~~² kept - ✓

500 Dogfish ✓

75 shates ✓

10 Anglers ✓

~~250~~ ²⁵⁰ flounders, $\frac{1}{2}$ large
8 to 24 inches overboard

~~300~~ ³⁰⁰ haddock ✓ 35 cod ✓

50 ^{Salmon} hake overboard ✓

$\frac{1}{2}$ basket starfish

1 doz scallops ✓

(5) a few small sculpins ✓

4 lemon sole ✓

3 ^{Set} 6.05 AM. 6.35 AM.

28 to 13 fath. 2 miles

A short haul in shoal water

50 flounders overboard ✓

60 squirts " ✓

~~a few~~⁵ cod ✓ + ~~2~~² hake ✓ 100 haddock ✓

8 or ~~10~~ lemon sole ✓

30 skates & 20 dogfish ✓

8 or ~~10~~ scallops ✓ + few starfish

6 monkfish ✓

From this & the last ^{2nd} haul were
also shoveled overboard,

150 ^{squid} (dead) ✓

200 ^{shrimp} hake " ✓ 50

~~75 flounders 1/2 dead~~

all the scallops, ^{other molluscs} taken ✓

#2. 3.45 AM. a little
NW of same ground 38 fath
2 whales 1/4 mile off. "Spray"
coming on the ground.

Working NE. Breeze SE
with rain. Towed till 5.20
AM in 17 fath, covering between
5 + 6 miles.

100 shates ✓

200 dog fish ✓

18 monk fish ✓

150 ^{shales} hake ✓ large + small on board

100 Squirrel ✓ "~~large + small~~"

4 hake ✓

flounders ✓ 50 + 80 = 130 "

50 Cod ✓ few small 2 ✓

~~300~~ haddock ✓ few small 6 ✓

11 Sole ✓

5 ab. sculpin ✓

35 scallop. + a few sponges +
hermit crabs

Mesh of trawl 3' bar single,
1 1/2' bar single, 1 1/2' bar double ^(cod end)
Capt. gets \$95 + 20 per ~~ton~~ on the catch.

The worst ground on Georges
is "macaroni" a mixture of
worm tubes sand + mud which
fills the nets & is so heavy it
is very difficult to get up without
carrying away the gear.

Turned in at 7. P. M.

Turned out at 11. P. M. Course
SE by S clear starlight, with light
SE breeze. Water phos. with large
medusae, sea smooth. Expect to
begin to fish at 2 A.M.

June 20th
1. 1.40 A.M. the trawl was set in
28 fath, about 80 miles SE 1/2 E
from Highland light. Hundreds
of petrels about the ship, several
coming aboard.

towing N. on ground W. of
cultivated shoal. (Eldridge chart
wrong). Hauled at 3 AM in
19 fath. 4 miles:

Haul @ 200 large skate. ✓

6 monkfish. ✓

50 dogfish. ✓ 20 ^{small} hake ✓

~~800~~ haddock ✓ 6 ~~large~~ squirrel ✓

20 Cod. ✓

8 sole ✓

(not more than 25
haddock too small. ✓
They went over dead.)

About 50 small flounders (overboard) ✓

40 sculpin: ✓

30 scallops ✓ 6 quahogs. 15 hermit crabs

The haddock were feeding on
sand-lance.

June 15. left Washington P.M.
 " 16 left Phila for Cape May.
 " 17 " Cape May
 " 17 " Phila.
 " 18, 8 AM. Arrived in Boston
 " " Went to see Mr. John R. Neal,
 and through him arranged to go
 aboard Str Crest, of the Bay State
 Fishing Co. Went aboard at 4 P.M.

She then proceeded to Chelsea to coal,
 and thence to East Boston to ice,
 lying at the latter place all night.

Expenses - June 15th

Baggage transfer	:35-
Car to station	.05
June 17 th supper ^{Phila} both to Boston	1.60
" 18 porters fee	.25
" " breakfast at Boston	.55
	<hr/>
	2.80

paid, 2.80

Cab to wharf (necessary with
2 pieces baggage & limited time .50
Lunch, Boston. 25

3.55

June 19th Came in clear &
cool with light N. breeze.

Finished taking up & cast off at
10.25 A.M. Passed Boston Light
11.30 A.M.

Capt. says the trawl spreads
about 90 ft as near as he can
guess.

1.30 P.M. E.S.E breeze, smooth
sea; Men overhauling the stbd
net repairing, etc. & shackling
to the other boards.

4.30 P.M. Highland light
S.W. 4 miles

Ste "Crest" of Boston

Michael (wire) (green)

Built 1911 at Quincy. Steel.

244 gross tons

3.30 P.M. left for Boston,

arriving at T Wharf 7.30 AM.

June 24th

Went ashore. Bath at Essex 50¢.

Car fare to Cambridge & ret. 10

Lunch 50

Dinner 75

1.85

STUDENT

FILING COVER

To Bind Completed Matter



Course given by

SUBJECT:

For the
NATIONAL SEPARATE-LEAF NOTEBOOK

Patented by E. W. Hill, July 5, 1898.

STUDENT

FILING COVER

To Bind Completed Matter



~~Course given by~~

Haure de Grace

SUBJECT:

2nd + 3rd trawling trip

For the
NATIONAL SEPARATE-LEAF NOTEBOOK

Patented by E. W. Hill, July 5, 1898.

June 24th Arranged to meet Dr.
Bigelow on the 2nd or 3rd of July
at Gloucester.

In the afternoon a large men-
laden boat landed 5000 exceptionally
fine large mackerel at T^h wharf.
Many sword-fish + wolf-fish on
the dock.

After a long delay for ice &
crew, left Boston 12 Midnight

June 25 1.30 P.M.

77 miles ^{SE $\frac{1}{2}$ E 30 m}
~~SE $\frac{1}{4}$ E.~~ from Highland
light, passed through the line of
dories of a Boston schooner
distant $\frac{1}{2}$ mile E.

Sounded 27 fath. Clear,
fresh W. breeze + moderate sea.
A whale SE $\frac{3}{4}$ mile.

Changed course S.W. 1.45 sounded 34 fath
2.05 P.M. sounded 21 F.

Hauled at 3.50 P.M. 40 fath

See over

100 Haddock in a dump

140 scrod

#1 set trawl 2.10 P.M. 21 fath.

NW by N. 3 P.M. 31 fath.

hauled out 3.50 P.M. in 40 fath.

1 checker

55 Dog-fish ✓

35 Skate ✓

9 flounder medium count ✓

32 White hake (6 to 12 in) ✓ count

5 squinels count ✓

3 monkfish count ✓

260 haddock count. } 402 ✓

142 Scrod. count. }

5 cod small (4 lbs to 5 lbs.) count

3 sole ✓ 4 small over. count

2 sculpin ✓ count

6 butterfish ✓ "

1 scallop ✓

2 quokogs ✓

123

1111

#2 shot trawl at 4.25 PM 40 fath.

Towed N by W, ~~W~~ ^{NE} 5.50 P.M. 53 fath.

Hauled at 6 P.M.

2 full checkers

150 Dogs ✓

30 Skates ✓

60 flounders ✓

400 silver hake ✓ a few large, mostly ~~medium~~ ^{small}

6 ~~#~~ Monks ✓

~~600~~ ¹⁷⁰⁰ Haddock } 1000 ✓

300 Scrod }

15 Cod ✓ 4 to 8 lbs.

3 hake ✓

100 Squinibs ✓

3 sole ✓ ~~2 small overb.~~

4 ~~sole~~

6 Scallops ✓ 4 quahog ✓ 1 sea urchin ✓

56
140
130

#3 shot at 7:15 P.M. ^{46 fath.} Towed NWE

8 P.M. foggy hauled at 8:40
in 55 fath. 1 large checker

250 flounders [✓] nearly all large
_{2/3 alive}

11 rose fish [✓]

30 hake ~~2 fish~~ [✓]

10 cod [✓]

15 skate [✓]

30 dogfish [✓]

2 monk [✓]

50 squirrel [✓]

100 white hake [✓] a few large

300 haddock } 400 [✓]

100 scrod }

1 pollack large [✓]

Very dark & hard to
see - only 1 light, foggy

3 scallops
a few hermit crabs
& sponges

#4 Shot at 9.50 P.M. 55°

Hauled at 11.15 P.M. 19° F

IVNE fog + rain -

3 checkers

~~1000~~ Skate ✓

40 dogs ✓

150 flounders ✓

100 white hake ✓

300 squirrel ✓

25 Monk ✓

90 hake ✓

~~1000~~⁹⁰⁰ haddock - prob 50 fry } 1200 ✓

300 scrod

50 cod ✓

20 sculpin ✓

6 sole ✓

a few scallops ✓ + stars

The next haul was dumped on top of this before it was 1/4 called, so this is only a rough guess.

#5 ~~12 midnight~~ 11.45 P.M.
34 fath. Hauled at 12.05 AM 14F
towed south

~~1000 Haddock~~

Skate haul

1 checker

✓ 123 skates, many very large
✓ 28 monkfish ^{count}

a very little other stuff which
was mingled with the preceding
haul

June 26

6 Shot 12.40 Am. 54 / ath

Tow S.S.W. Sharp rain

Hauled 2 Am 40 F(?) ~~1~~ checkers

50 Shuter ✓

10 Dogs ✓

8 Monk ✓

80 flounders ✓

30 Squid ✓

40 silver hake ✓

15 Cod ✓

250 haddock } 330 ✓

~~80~~ Perod } 330 ✓

40 hake ✓

8 sole ✓

1 redfish ✓

Pouring rain &
very dark, but
this is pretty
close

1 bush sponges + stars

Vessel with doves out
blowing at 4.10 Am not seen

#7 Shot at 2.20 AM 40 F(?)
towed WNE Haul in 47 fath
at 3.50 AM.

SW breeze rain + fog. mod. sea.
1 large checker

30 Skate ✓

11 dogs ✓

0 monk ✓

184 flounder ✓ count 1/2 alive 1/3 large

3 sole ✓

20 squirrel ✓

30 white hake mostly small ✓

5 hake ✓

275 haddock } 425 ✓

150 scrod }

3 cod ✓

1 plaice ✓

3 small crabs 20 hermit ditto

0 scallops 1 feck stars 1 feck sponge

The ♀ red fish are greatly distended

The young red fish flowed from the females in brownish granular masses, their golden irises + black pupils being very conspicuous

This fish when brought to the surface floats very high in the water, and nearly always the eyes are extended. It does not however die as quickly as *Merluccius*

Took a large lot of the young from 2 females in strong formalin + salt water,

#8 Start 5:30 AM

towed NNW. Redfish haul

Hauled 7 AM 55 fath

240 Redfish ✓ ⁶ _{to # in long}

8 Skate ✓ 2/3 ♀ with young

70 dogs ✓ 10+

180 flounders ✓ 1/2 alive 1/3 large

15 squid ✓

75 white hake ✓

220 haddock } 245 ✓
25 scrod }

14 ♀ hake ✓

8 cod (3 small overboard) ✓

2 sole ✓

1 pollock ✓

2 scallops ✓ 3 hermit crabs

Passed classe with Ellen + Mary

9:25 AM not fishing

#9 shot at 7:40 AM in 39 fath

5 m coming out towing ENE

Hauled 9 AM 29 fath

1 large checker

100 Dog ✓ Pollack 1 small

25 Skate ✓

55 flounder ✓ mostly small

2 red fish ✓

11 butterfish ✓ largest 11 1/2 in smallest 9 3/4

4 monk ✓

24 squirrel ✓

60 silver hake ✓ small ✓

450 haddock fry 14 ✓

160 ✓ scrod

5 cod ✓

4 hake ✓

2 sole ~~2 small~~ ✓

4 ~~fish~~ herring 14 in ✓

1 squid 8 in long

4 hermit crabs

#10 Shot at 9.45 AM 53 fath
Towing ENE Hauled 11.30 AM
in 28 F. 1 large chucker

457 Dogs ✓ count

18 Skate ✓

2 Monk ✓

175 flounder ✓

100 silver hake mostly small ✓

20 squirrel ✓

230 ✓ Haddock 38 fry ✓

60 ✓ Scrod

0 Hake

3 ✓ Cod 1 small overboard ✓

0 Sole

2 butterflyfish ✓

1 plaice ✓

foggy with sun → SW breeze

11 Shot at 11,50 AM 28 F

Towed N. hauled 1.10 P.M. 30 F.

1/4 checker -

100' Dags ✓

9 Skates ✓

1 Monk ✓

27 flounders ✓

40 silver hake - small

12 squirts ✓

8 Haddock 16 fry ✓

0 Scrod

3 Hake ✓

1 Cod ✓

8 sole ~~3 small on board~~

12 Shot at 2 P.M. ^{40 F} Hauled
at 3.35 P.M. 24 F

NE by N. 2 checkers

60 Dog ✓

20 Skate ✓

7 Monk ✓

350 Silver Hake ✓ mostly small

30 Squid ✓

130 Flounder ✓ mostly small

5 Sole ✓

900 ✓ Haddock 23 ✓ fry

250 ✓ Scrod

0 Hake

2 Cod ✓

1 Wolf-fish ✓ 3 ft

1 Pollack ✓ small overboard

18 "onions" a few hermit crabs

#13 Shot at 3.50 P.M. 24 F.

towed W $\frac{1}{2}$ N.

Hauled 5.35 P.M. in 33 fath
1 checker.

50 Dog ✓

20 Skate ✓

14 monk ✓

40 flounder ✓ mostly small

15 Squid ✓

275 silver hake ✓ mostly small

150 Haddock 15 fry ✓

80 ✓ Scrod

3 hake ✓

4 cod ✓

10 sole ✓ ~~small~~

14 Sculpin ✓

15 ✓ quahog 3 onions
sponge 6 ✓ scallop

#14 Shot at 6 P.M. in 33 fath.
Towed NE by E. hove in 7.20 PM
in 40 fath. 1 large checkers

- 50 Dogfish ✓
40 Shales ✓
5 Monk ✓
120 flounder ✓ mostly small $\frac{2}{3}$ are above
200 Whitehake ✓ "
50 squirrel ✓
300 Haddock ✓ 15 fry ✓
100 Scrod ✓
1 Halibut small ✓
1 Hake ✓
9 cod ✓
1 Wolf fish ✓
25 sculpin ✓
12 Sumner ✓

3 scallop 4 mussels & a few hermits

#15 Shot at 7.40 P.M. 40 fath
towing NE. Hauled at 9.10 P.M.
48 fath. weather clearing mod. sea
1/2 checker.

- 18 Soops ✓
11 Skate ✓
120 flounder ✓ mostly small 2/3 alive
7 hake ✓
18 Squid ✓
40 white hake ✓
1 halibut 3 ft ✓
300 Haddock ✓
60 Scrod ✓
3 cod ✓
2 butterflyfish ✓
7 monk ✓

25 onions 11 scallops

16 Shot at 9.30 P.M. 48 F

towed E by N. Hauled 11.10 P.M.
in 38 F. 1 chicken

11 Dog ✓

26 Skate ✓

8 Monk ✓

20 flounder ✓ mostly small 3/4 alive

50 silver hake small ✓

20 squirrel ✓

340 Haddock ✓

75 Scrod ✓

5 Hake ✓

7 cod ✓

3 sole ✓

5 Squid 40 onions

26 scallops few stars & hermits

17 shot at 11,35 PM, in 38 F
load NE Hauled 1.05 AM 34 fath

1 large checker +

1	Dogs	✓
28	Skate	✓
3	Monk	✓
120	flounder mostly small	✓
40	silver hake " "	✓
65	squid	✓
4	sole	
600	haddock	✓
250	Scrod	✓
7	cod	✓
1	pollack	✓
3	hake	✓

✓
14 scallops

18. Shot in 52 fath 2.10 AM
towed 2. Hauled 3.20 AM ^{30 F}

June 27

Clear + cold - rising N. wind

1 large checker

3 wolf fish ✓ 3 ft 9 to 3 ft.

0! dogs ✓

50 skates ✓

10 monk ✓

6 sculpin

500 Haddock ✓ 5 fry ✓

200 Scrod ✓

4 hake ✓

23 cod ✓

8 sole ✓

90 flounder ✓ mostly small.

14 Scallop ✓ a little
6 sea urchins
sponge & mussel ✓
3 quahog 9 Onions 20 cucumbers

19 Start at 3:45 AM in 30 F

Tow NW by W ^{1/2 SW by W} hauled 5:15 AM (36 F?)

1/3 checker (Clear & bright, N wind & rising sea)

2 Dog ✓

18 Skate ✓ count

3 Monk ✓ "

58 flounder count ✓

100 white hake ✓ mostly small

0 Squid

127 haddock ✓ count

21 scrod ✓ count

2 hake ✓ "

4 cod ✓ "

4 sole ✓ "

11 scallops ✓

#20 7:15 AM. 33 fath. Shot
towed N.W. to 56 fath at 9 AM. hauled
1/2 large checker

23 Dogs ✓
19 Skate ✓
3 Monk ✓

cloudy & cool
medium sea -

56 ✓ flounder (count) mostly very small

75 ✓ white hake mostly small

18 ✓ squirrel

235 ✓ Haddock - count

~~39~~ ✓ Scrod ✓ "

~~2~~ ✓ butterfish ✓

3 ✓ hake ✓

7 ✓ cod ✓

0 ✓ sole ~~4 small, one had dead~~

20 murex 4 ✓ scallops

3 gastropods. a few stars

Fishing so very poor that we
have been going about after
each haul looking for better
ground, but without success.

45
120
240
140
√ 25

#21 10.30 AM. 37 fath. Shot.
towed E. Hauled 11.50 AM ~~35~~²⁹F

~~For~~ Here picked up buoy & trawl ^{marker}
line - no seal in sight.

1 large checker -

45 Dog ✓

20 Skate ✓

11 Munk ✓

40 silver hake (10 large, 30 small)

14 squirrel ✓

23 flounder ✓ small count

425 Haddock ✓ 7 fry ✓ count

$\frac{175}{600}$ Serod ✓
hake

1 cod ✓

1 halibut ✓ 3# 6 in.

2 sole ✓

2 butterfish ✓

Our bad luck is explained
by the mate as entirely due
to the wanton murder of
a half-starved rat which
appeared on deck the second
day out. The cook fed it
by hand, but the skipper
hove it overboard. *

Started home 3.15 P.M.

22 Set at 1 P.M. 40 fathoms

Took water sample -

48 F.

Towed NE hauled at 2.55 P.M.

1/2 checker

15 Dogs ✓

11 Skate ✓

1 Monk ✓

84 flounders ✓ some large witches
but mostly small dots
most over alive.

15 Squid ✓

58 silver hake (8 large) ✓

150 Haddock ✓

2 cod

Sponge 1 pack

45 scallops ✓ 2 or 3 stars

June 28
Arrived T Wharf @ 30 AM.

Expenses in Boston

Bath (Hotel Essex)	50
Cayman ^{B. to} Cambridge & ret.	10
Lunch	15
dinner	1.20
	<hr/>
	1.95

Went aboard "Crest" in the evening.

Board on the "Crest"

Board supper June 18th to breakfast

June 24 5 $\frac{2}{3}$ days

Board breakfast June 25 to breakfast

June 28th 3 $\frac{1}{3}$ days

Board breakfast June 29th to supper

June 30th 2 days

Board breakfast July 1st to

Use either as an
INDEXING SHEET



To subdivide and index the leaves
for various Subjects

—OR—

OR

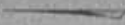
FILING COVER

TO BIND COMPLETED MATTER

For the  

**NATIONAL
SEPARATE-LEAF NOTE BOOK**

Patented by E. W. Hill, July 5, 1898.

Course given by 

from to

SUBJECT:

1
June 29th left Boston in the
Crest, 8.30 Am. Hot + clear
but hazy with light variable
breezes + smooth sea. Course
ESE from about 4 miles off
Highland light.

9 P.M. set in 74 fath about
 $41^{\circ} 58' N$, $68^{\circ} 49' W$. 90 miles
from Boston lightship.

Towed NNE $\frac{1}{2}$ E + cast $\frac{1}{2}$ h. E.

9:10 P.M.

Creeping up + blowing strong
from NNE.

Hauled at 10.35 P.M.

- 3 Monk fish ✓
- 1 Small haddock ✓
- 2 Witch flounder ✓
- 7 Sand dab (small) ✓
- 5 Small shales ✓
over

About 3 bushels of ground
stuff — large anemones,
holothurians and sponges. The
latter were of two kinds, one
round, from the size of an
egg to a cantaloupe, and
the other flat, blanket-like
the largest 2 ft by 1 ft x 1/2 in
2 hermit crabs

1 skate egg capsule empty

Examination was rendered
difficult by high sea, darkness
& high wind.

The net was badly torn,
no further attempt was made
to fish in this region.

June 30th

#2 Set at 4:15 AM in 44

fathoms. Day came in clear & bright, with stiff NE breeze & high short sea. Towed SE $\frac{1}{2}$ E

Hauled 5:45 AM in 29 fathoms.

The vessel rolling & pitching very

lively. 1 large checker

3 dogs ✓

17 skates ✓ 18 sole ✓

5 monk ✓ 3 squid ✓

36. flounders ✓

218. ^{silver} hake ^{small} ✓ 16 scallops ✓

5 gurnards ✓ a little sponge

3 sculpin ✓ a few stars

400 Haddock ✓ 7 quodrog ✓

150 scrod ✓ 3 onions

2 halibut small ✓

2 hake ✓

8 cod small ✓

1 butterfish ✓

#3 Set at 6 AM in 29 fath
towing W.N.W, & rolling quinnels
under. Hauled 7.30 AM in 40 fath.
1 large checker.

- 7 sole ✓
- 1 small halibut ✓
- 350 haddock ✓ 45 fry
- ~~175~~⁵²⁵ scrod ✓
- 4 monk ✓
- 11 dogs ✓
- 14 shats ✓
- 12 cod small ✓
- 70 silver hake ✓
- 20 flounders small ✓

1/2 bush scallop ✓ & quohog shells
9 scallops ✓ 1 mussel ✓ a little sponge

#4 set at 8.35 AM 44 fath
towed NW. Hauled 9.35 AM.
in 44 fath. 1/3 checker
The "Surf" 2 m. S.W

5 dogs ✓

14 skate ✓

7 manta ✓

5 L.
62 S. flounder ✓

4 L.
23 S. Silver hake ✓

12 squirrel ✓

12⁵ Haddock ✓

21 Scrod ✓

2 hake ✓

5 L.
8 S Cod ✓

1 Squid ✓

4 Scallop ✓ few stars 1 mussel ✓
2 crinoids

Length of haddock fry

cm	30	26	23	25
	31	28	26	27
	24	32	26	
	29	32	24	
	24	31	26	

#5 Set at 10.35 AM 3.4 fath
Wind & sea moderating somewhat
towing NE.

Hauled at noon 35 fath
1 large checker

28 Dogs ✓ 24 Sole ✓

85 Skate mostly large ✓

22 Mackerel ✓

60 flounders mostly small ✓

90 silver hake " " ✓

2 Squid ✓

175 Haddock ✓ 177 fry ✓ see above

60 Scrod ✓

0 Hake

0 Cod 1 Butterfish ✓

4 Gurnard ✓

13 sculpin ✓

1 Liparus ✓

✓ 10 quahog

3 bushels shells & sponges 20 sea urchin

#6 Set at 1 P.M. 34 fath.
Towing E $\frac{1}{2}$ N. Hauled 2.15^{PM}
in 26 fathom. $\frac{1}{4}$ checker
wing of net torn.

3 Dogs ✓

7 Skate ✓

3 monk ✓

4 flounder small ✓

0 silver hake

0 squirrel

21 Haddock ✓

11 Scrod ✓

11 $\frac{1}{2}$ Cod ✓ 37 Small ✓ 4 fry ✓

2 Sole ✓

3 Murnard ✓

$\frac{1}{2}$ bushel

Holothurians & Scallops ✓ 30 Mussels
a lot of scoll of shells

#7 Set at 3.15 P.M. 59 fath.
Toward E S E ~~Hauled 4.20 P.M.~~
Hauled 4.40 P.M. in 34 fath.
belly of the net torn from the
foot-rope and badly split
1 medium checker shift to stbd.

- 30 Dogs ✓
- 4 Skate ✓
- 9 Monk ✓
- 5 flounder small ✓
- 40 silver hake med & small ✓
- 260 Haddock ✓ 14 fry ✓
- 78 Scrod ✓
- 0 hake
- 5 Cod small ✓
- 2 Sculpin ✓
- 3 Squid ✓
- 1 pick Scallop shells & holothurians
- 26 Scallops ✓ 20 Sea urchins

Answer

#8 Set at 5.30 P.M. 56 fath

towing SSW Hauled 6.30 P.M.

26 Dogs ✓ 30 fath.

19 Skates ✓

6 Monk ✓

4 sculpin

1 pollack small ✓

1 ^{medium} Cod 6 small ✓

167 haddock ✓

4 ⁵/₁₂ Scrod ✓

4 flounders small ✓

4 ^{caught} _{6 sent} silver hake ✓

1 cunner ✓

✓
7 mussels 3 gastropods.

16 ✓
Scallops 25 seaurchins a few stars
+ sponges

#9

Sailed W till 9.45 P.M.

Set in 36 fath. ^{10.15} Set ~~10.30~~ P.M. 36 F
Lowered E.M.E.
Hauled 11.45 P.M. 34 fath.

1 Wolf-fish ✓

1 halibut small (18 in) ✓

1 branch herring ✓

350 Haddock ✓ 40 fry.

200 Serod ✓

7 Sole ✓

16 cod small ✓

60 flounders ✓

50 white hake small. ✓

(Shake & dogs had been fished
over when I got there -)

(dreamed that a haul was
being made and couldn't wake
up!)

July 12th

120
120

10 Set at 12.40 AM in 35 fath
towed N 1/2 W. Hauled 2.10 AM.
37 fath

Wind & sea moderated, clear moonlight
1 checker. another trawler 1/2 mile

- 23 Dog ✓
43 Skate ✓
11 Monk ✓
1 wolf. small ✓
17 flounder " ✓
35 silver hake ✓
30 squirrel ✓
290 Haddock ✓ 18 fry ✓
60 Scrod ✓
8 Cod medium 3 small 2 fry ✓
7 hake ✓
11 sole ✓
3 robin ✓
14 sculpin ✓ 1/2 peck crabs
1 quonard ✓ + a few stars.

Sea raven - stomach 1 crab, &
over 1 qt water. All taken had
the stomach distended with water

120
120

11 set at 2.45 AM. 4 3/4 fath

towing NW by W. Hauled 4.15 AM

36 fath

1 lobster ✓

27 Skate ✓

14 dog ✓

12 monk ✓

48 small
3 large flounder ✓

5 large
50 small silver hake ✓

4 squirrel ✓

260 Haddock 37 fry

56 scrod ✓

3 Hake ✓

1 medium
18 small cod ✓ 13 fry ✓

24 sole ✓ 1 prebald

2 sculpin

3 Gurnard = 1 = 2 2 1/2 in ♀ ^{stom} 1 crab.

1 halibut prebald small ✓

1 4 spotted flounder ✓ 3 mussel ✓

4 scallop ✓

✓ quhog ✓ 3 hermit crab ^{1 fresh} _{one em}

190
20

6.30 AM. Hauled 10 f.

#12 Set in 40 fath, 7.30 AM.

Towed ~~###~~ NW by W. Hauled 8.45 AM

Sech. at anchor $1\frac{1}{2}$ miles N. ✓

1 under sail 2 miles N.W.

1 huge ship's anchor, which was successfully got aboard at 9.45 AM

1 checker

1 lobster ✓

1 wolf fish ✓

22 dogs ✓

9 skates ✓

550 silver hake mostly small ✓

35 squirts ✓

85 small

7 large flounders ✓

315 Haddock ✓

60 Scrod ✓

7 Hake ✓

1 large
small 9 cod ✓

Scallops 5 ✓

3 monk ✓

2 sculpin ✓

poarcus (6 more in next haul
same color,)

Color of ~~specimens~~ 58 cm. alive

Body greenish yellowish gray,
with irregular olivaceous mottlings
on anterior half; ^(see tail) paler below
shading into white on belly, throat,
and space before pectorals. Head
olivaceous, darker on snout, ~~orb~~,
maxillary yellowish olive.

Dorsal, grey mottled with olive
with distal $\frac{1}{3}$ olive with a yellow
wash - tips of rays whitish.

Posterior part of body shading
into yellowish, caudal yellow
with narrow white margin. Anal
white, with yellowish band distally and
white margin; ventrals whitish with
yellow wash; pectoral orange, iris
golden.

128

120

#13 Port net Set in 46 fath
at 10.55 AM Towed NNE 1/2 E
Hauled 12.30 P.M. in 55 faths
1 large checker

2 Branch herring ✓

11 Skate ✓

16 dog ✓

~~11~~ 4 mink ✓

86 flounder ✓ (12 large
rest small)

400 Silver hake nearly all small ✓

19 squid ✓

530 Haddock ✓

75 Cod ✓

3 Hake ✓

1 large
9 small Cod ✓ fry 2 ✓

5 Sole ✓

1 garces
~~garces~~ ✓

2 sea raven ✓

1 Scallop ✓

120
120
120
120
130
130

14 set at 1.10 P.M. in 41 fath
Towed N.

Hauled 2.30 P.M. in 19 fath.

2 3/4 checkers - the biggest this trip.

160 Shales 1/3 large ✓

40 dogs ✓

9 monks ✓

120 Silver hake small ✓

7 large ^{witches} ✓
40 dabs flounders 58 (rusty dab before called young lemon sole)

250 squinels ✓

830 Haddock 19 fry ✓

250 Scrod ✓

6 Hake ✓

3 ✓ Cod 12 ✓ Small 5 ✓ fry

23 Sole ✓

28 Sculpin ✓

6 Hoarcs (same color as described) ✓

1 hanch herring ✓

30 ^{hastinofods} 11 scallop ✓

120

120

120

360

#15 Sat 3. 20 P.M. 43 F

Towing S.S.W. Hauled 4.50 P.M. 29 F.

Calm, clear, warm & bright. A wackerul
seine sch. fishing 2 miles E.
2 1/2 checkers

228 Skate ✓ (count., 1/2 large) mostly ocellata
many erinacea
some laevis

160 Dog ✓

26 Monk ✓

1 Harems ✓

100 flounder ✓ (1/2 rusty dabs)

80 silver hake ✓

50 squirrel ✓

360 Haddock 23 ✓ fry

150 Scrod

2 hake ✓

3 L. Cod 20 small 2 ✓ fry

20 sculpin ✓

8 sole ✓

14 ✓
Scallops few stars

1 quahog ✓

1/2 bush gastropod eggs (?)

16 5.25 P.M. 23 F.

towing NW $\frac{1}{2}$ N Hauled 7 P.M. 44 f

- 1 large checker
- 90 Shakes ✓
- 100 Dogs ✓
- 0 munks ✓
- 40 flounders ✓
- 50 silver hake small ✓
- 35 squirrel ✓
- 30 sculpin
- 215 Haddock ✓ 11 fry ✓
- 160 Scrod ✓
- 0 Hake
- 3 ^{medium} Cod ✓ 20 small ✓
- 7 sole ✓
- 2 branch herring ✓ (X)

8 mussels ✓ 5 hermit crabs ✓ 6 scallops ✓

076 Set at 8 P.M. 33 fath.

Hauled at 9.25 P.M. in 50 fath

NNW + NE

2 1/2 large checkers

140 Shales ✓

60 dogs ✓

5⁺ monk ✓

75 flounders mostly small ✓

70 silver hake " " ✓

140 squinels ✓

40 sculpin ✓

1000 Haddock 12 fry ✓

350 Scrod ✓

20 Hake ✓

50 Cod ✓

28 Sole ✓

25 scallops ✓

187 Set at 10.15 pm in 28 fath
Towed WNE Hauled 11.45 P.M. 68 F
2 large checkers

- 50 Skate ✓
- 20 dog ✓
- 7 Monk ✓
- 80 flounder ✓
- 150 squirrel ✓
- 50 silver hake small ✓
- 30 sculpin ✓
- 900 Haddock ✓
- 300 Scrod ✓
- 25 hake ✓
- 55 cod ✓
- 23 sole ✓
- 1 large pollack ✓

6 few scallops. ✓

July 2nd

#19 Set at 1.00 A.M. 26 fath
Towed N. Hauled at ^{2.20} A.M. 45 fath

1 large checker

85 Skate mostly all large ✓

5 dog ✓

8 monk ✓

65 flounder small ✓

60 squirrel ✓

40 silver hake ✓

160 Haddock ✓

40 Scrod ✓

3 Hake ✓

17 Cod (small) ✓

3 Sole ✓

20 Sculpin ✓

2 Pollack ✓

21 Scallop ✓

Sand dab

15.5

16.5

15.5

16

20

16

17.5

14.5

18

15.5

18.5

15

19

15.5

17

16.5

18

17

16

15.5

10 weigh 17 lbs

10 weigh 14 lbs

30
120
120
120
120

510

#20 Set 3.40 AM, 54 fath

Hauled 5.15 AM 37 fath

Towed NE by E

1 1/3 large checkers

38 Shales ✓ 3 branch herring ✓

45 dogs ✓

15 mink ✓

sculpin

95 flounders 1/3 large ✓

125 silver hake (only 12 large) ✓

60 squirts ✓

570 Haddock ✓ 4 fry ✓

150 Scrod ✓

20 Hake ✓

3 med
15 small Cod ✓

29 Sole ✓

1 Zoarcas 81cm 8 lbs color as descr. same

2 Sea raven ✓

45 Scallon 11 quahog ✓

Bull 47

pseudoharungus

Head $4\frac{2}{3}$ Depth $3\frac{1}{3}$

D: 16 A 19 lat line 50

Scutes 21 + 14

Dorsal higher than long

estivalis

Head 5 Depth $3\frac{1}{2}$

1st ray of dorsal not equal to base

medicinis

Head 4, Depth $3\frac{3}{8}$

Scutes 20 + 16

50

120

106

130

120

120

546

21. Set 5.45 AM in 37 fath
Towing W by S.

Hauled 7.15 AM 33 fath
2 large checkers

50 Skate ✓

40 clags ✓

7 Monk ✓

80 flounders ✓ $\frac{1}{2}$ rusty dabs of fair size
15 to 17 inches

75 Squinid ✓

50 silver hake ✓ small

1 Pollack large ✓

640 Haddock ✓ 13 fry ✓

240 Scrod ✓

0 hake

11 med cod 2 small ✓

18 sculpin ✓

28 Sole ✓

9 gastropods

✓ 6 mussel 20 ✓ Scallops

Bull 47

Urophycis

Scales 140 D 9-57 A 48

Ventrals reaching vent — terrestris

Scales 110 D 9-57, A 50

Ventrals beyond vent, not longer than head

chuss

Scales 90, D 9-56, A 56, 2nd

d. filamentous, ventrals very long, nearly

3 times head chesteri

Haddock	lbs	live weight	Scrod
4	5.5		2
4	4		2
4	4		2
3	4		3
3.5	4		2
4			2
3			

Clear bright mod W wind

+ sea. IIII

#22 Set at 8.10 AM in 36 fath
Towing NW, hauled 9.35 AM. 38
1 large checker clean haul

- 12 Skate ✓
7 dog ✓
0 Monk ✓
7 ✓ ^{medium} flounder 5 brown tails
2 dabs.
6 ^{medium} silver hake ✓
0 Squid ✓
15 Sculpin ✓
650 ✓ Haddock 5[✓] fry
200 Scrod
0 hake ✓
11 large Cod 18 small 7 fry ✓
0 sole ✓
1 pollack ✓
5 Scallops ✓

fish too small to market

Cod under 20 inches 2 1/2 lbs apiece

3 20 in 8 lbs

3 " 7 "

3 " 7 "

3 "

$$\begin{array}{r} 3 \\ \hline 12 \end{array} \quad \begin{array}{r} 8 \\ \hline 12 \overline{) 30} \quad (2.5 \\ \underline{24} \\ 60 \end{array}$$

Cod fry = under 1 lb, 15 inches

$$\begin{array}{r} 14 \\ 12 \\ 16 \\ 17 \\ \hline 4 \overline{) 60} \\ \underline{15} \end{array}$$

100
120
120

#22 Set at 10.30 AM 39 F.

Towing N by E Hauled 11.50 AM 34 F

1/4 chickens

9 brant hunting ✓

23 dog ✓

5 skate ✓

3 monk. ✓

8 flounders medium ✓

120 white hake small ✓

700 Haddock ✓ 16 fry ✓

175 Scrod ✓

9 Hake ✓

5 ^{medium} Cod ✓ 3 small ✓

6 Squid ✓

17 Sole ✓

Rusty dab,

inches

16.5 13

14.5 12.5

15 13.5

16.5 13.5

14.5 15

17.5 15.5

16 16

15.5 15

16 15

15.5 14

20 weigh 22 lbs

ditto

13.5 14.5

14 15

12.5 13.5

15 15

16.5 13

16.5 13.5

12.5 16

13 15.5

13 15.5

15 16

20 weigh 20 lbs

witches

24	} 18 lbs	25	} 19
22		26	
26		26	
24		21	

4

#24 set at 12.45 P.M. 75E
ENE hauled 2 P.M. 18 fath
2 1/4 large cheaters

60 Skate ✓

75 dog ✓

8 mawk ✓

160 flounder (30 large
100 medium) ✓

30 large
125 silver
silver hake ✓

130 squirrel ✓

1100 Haddock 26 fry ✓

275 Scrod ✓

9 Hake ✓

28 Cod medium ✓

24 Sole ✓

12 Sculpin ✓

✓
22 scallop 15 gadrog ✓

25 Set at 2.50 P.M. 40 fath
Towing NE

Hauled 4.20 P.M. 26 fath.

2 large checkers

7 Rose fish ✓

50 Skate ✓ 200 Silver hake small

65 Dog ✓ 25 " " large

30 Monk ✓ 40 Squid ✓

1 Porcupine

220 flounder ✓ 35 large witcher

3 " plaice

550 Haddock ✓ 7 fry ✓

175 Scrod ✓

6 hake ✓

1 large
35 medium
Cod 3 small ✓

12 sole ✓

5 Branch herring ✓

1 Pollack large ✓

90 Sculpin ✓

12 hermits ✓ 3 bank clams

✓ 14 Scallops a few Stars 1 fresh Sponges

1 Hippoglossoides platessoides.

23 inches long 5 $\frac{1}{3}$ lbs.

Ground color olivaceous brown,
Snout + jaws darker: a series
of irregular dark brown blotches
3 near dorsal margin, 6 near
ventral margin, each as large
or larger than eye, but indistinctly
bounded. Three irregular larger
patches, and many smaller blotches
of the same color distributed over
surface. D. + A. fins ground
color with pinkish free tips to the
rays. Iris golden, eyeball showing
greenish gold through the skin
~~July 2.~~ July 2.

26 Set 5:10 P.M. 58 fath.
Back on same ground (?) ^{towed S.S.W} Breezing up
from West & getting rough
Hauled 6:45 P.M. 32 fath
1 ♀ lobster ✓ 20 inches | 1/2 checker

23 Skate ✓

1 Monk ✓

18 large
45 small flounder ✓

30 sole ✓

40 silver hake ✓

5 Dogfish ✓

28 Haddock ✓

11 Scrod ✓

1 Hake ✓

2 Cod small ✓

14 Squid ✓

Scallops - 28 ✓ 1/2 bush sponge
26 gastropods

#26 Sat 7:55 P.M. 28 F

towing NW hauled 900 P.M.
1 1/2 duckers 15 fath

230 Haddock ✓ 6 fry ✓

175 Scrod

7 halibut ✓

15 Cod medium ✓

1 Sole ✓

40 Skates ✓

20 Dog ✓

120 Flounder ✓ few large most medium ✓

150 Silver halibut mostly small ✓

275 squirrel ✓

9 monk ✓

14 Sculpin ✓

1 Yuccas ✓

12 ✓
Scallop 4 hermit crabs

120

125

120

#28 Set at 10.15 P.M. 40 fath
towing NE hauled 11⁴⁵ P.M. ^{midnight} 22 fath

2 checkers

60 Dog ✓

130 Skate ✓

14 Monk ✓

175 flounder ✓ mostly medium

200 Silver hake ✓ small

350 Squid ✓

575 Haddock 15 fry

180 Scrod

11 Hake ✓

35 ^{medium} Cod 15 small ✓

13 Sole ✓

30 sculpin ✓

20 Scallop 9 quoddy

75
100
120
120
415.

July 3rd

#29 Set at 1.10 am. 54 fath.
Towed net turned green. ^{Put net} Set again
at ~~1.22~~ ~~net hauled~~ ~~9.2~~ 2.30 AM 47,
Towed NE by N. Hauled 4.10 AM
in 27 fath.

1/4 large checker

22 Dog ✓ ~~2~~ ~~fish~~

40 Skate ✓ 1 Squid

5 Monk ✓ 9 Sculpin

150 Salmon hake ✓ small

55 Squid ✓

80 ~~Flounder~~ ✓ (50 medium 30 small)

415 Haddock ✓ 13 fry ✓

130 Scrod ✓

3 Hake ✓

1 large
9 medium Cod ✓

18 Sole ✓

26 ✓
Scallop 4 ✓ quahog a few stars,
murex + gastropods

60
30
120
120

30

#30

Set at 5:15 AM in 65 f.

Towed E 1/2 N Hauled 6:40 AM 35 Fath

1 Halibut 32 in ✓ (1 1/4 checkers)

15 Dog ✓ 1 hag-fish (2)

13 Monk ✓

38 Skate ✓

36 Squid ✓

80 large

150 small Silver hake ✓

35 large

140 medium 30 small ✓
flounders

230 Haddock ✓ 11 fry ✓

75 Scrod ✓

9 Hake ✓

5 large

26 medium Cod ✓ 3 fry ✓

4 Pollock ✓

3 Rose fish ✓

0 Sole

3 Branch herring ✓

3 Scallops ✓ 2 quahog ✓

170
120
150
120
560.

#30 Set 7.10 AM in 35 fath.
Towed NE Hauled @ 8.50 AM 43 fath.
1 3/4 chickens.

- 17 Dog ✓
- 26 Skate ✓
- 8 mawk ✓
- 47 flounder 4/3 good ✓
- 20 large
100 small silver hake ✓
- 15 squirrel ✓
- 560 Haddock 8 fry ✓
- 190 Scrod
- 3 Hake ✓
- 27 Cod medium 3 fry ✓
- 3 Pollack 1 (fry!) ✓
- 16 Sole ✓
- 18 Sculpin ✓

9 sea urchins

$$\begin{array}{r} 43 \\ 36 \\ 22 \\ \hline 101 \end{array}$$

$$\begin{array}{r} 23.5 \\ 24 \\ 24 \\ 15 \\ \hline 86.5 \text{ hrs} \end{array}$$

2.10

$$\begin{array}{r} 101 \overline{) 247} \quad (2.45 \\ \underline{202} \\ 450 \\ \underline{404} \\ 460 \\ \underline{404} \\ 504 \end{array}$$

$$\begin{array}{r} 10 \\ 24 \\ 14 \\ \hline 48 \text{ hrs} \end{array}$$

$$\begin{array}{r} 3. \\ 24 \\ 24 \\ 24 \\ 24 \\ 13 \\ \hline 112 \text{ hrs} \\ 86 \\ 49 \\ \hline 247 \end{array}$$

120
120
120

#32 Set 9.15 AM. 43 fath.
Towing E 10.45 AM. 47 "

1 1/2 duckers

35 Dog ✓

26 Skate ✓

13 Monk ✓

420 flounders count averaging over 1 lb. ✓

380 Silver hake (50 large) ✓

200 squirrel ✓

400 Haddock ✓ 32 fry ✓

130 Scrod ✓

16 Hake ✓

11 ^{medium} Cod ✓

39 Sole ✓

11 Branch herring ✓

2 Pollock ✓

252
Scallops ✓

Sponge ✓

1111

120

120

120

125

20

#33 Set 11.05 AM 47 fath.

Towing NE Hauled 12.30. 37 "

2 chickens

35 Skate - 11 butterfly ✓

50 Dog ✓

8 Monk ✓

482 flounders count ✓ $\frac{1}{2}$ are alive ^{75%} good

300 Silver hake small ✓

25 Squid ✓

510 Haddock ✓ 37 fry count ✓

180 Scrod ✓

8 Hake ✓

13 Cod ✓

35 Sole ✓

1 Pollack ✓

7 Sculpin ✓

1 halibut ✓

20 lbs

Size & weight Haddock fry
cm.

28	27	30	25	31	26
34	31	26	30	29	25
31	27	28	28	26	28
30	30	28	31	28	29
29	26	28	32	31	28
27	25	26	26	29	29
30	30	28	30	29	28
29	27	27	28	31	28
28	28	29	26	28	28
27	30	31	27	27	31

31	26	28	30	30
29	28	29	27	26
28	28	27	23	26
29	25	28	31	29
29	29	29	28	26

85 weigh 42 lbs.

34 Set at 1.45 P.M. 42 fath

Towing E. Hauled 3.10 P.M. 33"

1 medium checker

30 dog ✓

26 Skate ✓

4 monk ✓

168 flounder ✓ (40 large) (60 small)

6 squirrel ✓

150 silver hake ✓

262 Haddock ✓ 98 fry ✓

70 Scrod ✓

2 Hake ✓

3 Cod ✓

37 Sole ✓

3 branch herring ✓

Weight & length of
Merluccius,

cm

58

61

5 = 15 lbs

56

50

46

Weight of sole

5 1/4

4 3/4

4

4

3

4 1/2

Sole will run
about 4 lbs /

95

#35 3.45 P.M.

387

towing S.E. Hauled 5 P.M. 22 F

1 large chicken

60 Skate ✓

45 dog ✓

12 mackerel ✓

150 flounder ✓ $\frac{2}{3}$ good size (2 window panes)

130 squid ✓

250 silver hake ✓ nearly all small

155 Haddock ✓ 8-3 fry ✓

44 Scrod ✓

2 Hake ✓

Cod

sole

7 Sculpin ✓

3 Scallop a few Stars 1 fresh Sponge

130

120

#36 Set 6.30 P.M. 55 fath

Schm apparently putting out dories
2 miles west.

Towing S. S, E, Hauled 8.05 P.M.
31 fath
1 1/4 checkers

75 Skates ✓ 7 Rosefish ✓

15 Dogs ✓ 3 Sculpin ✓

17 Monk ✓ 1 Hoarce ✓

130 Silver hake ✓ all but a few small

60 Squinels ✓

180 Flounders ✓ 2/3 good

325 Haddock ✓ 35 fry

100 Scrod ✓

9 Hake ✓

1 large
18 medium Cod ✓

22 Soles ✓

1/8 anchog
30 Scallops 1 basket
Sponge 1/2 bush
Stain

USE THIS IN THE BOOK
AS AN

INDEX SHEET

To divide off the work
in different studies

— OR —

as a

FILING COVER

To bind, with the fasteners,
all work worth keeping for review.

For use in the

National Notebook

Patented by E. W. Hill, July 5, 1898.

SUBJECT OF STUDY:

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To index the book, write below on the margin, the name of the study

#36 set at 8.25 P.M. 31 fath
Towing N by E - Hauled 10 P.M. 47 fath

3 checkers.

- 180 Skate ✓
- 50 Dog ✓
- 27 Monk ✓
- 450 flounder ✓ 1/2 good
- 500 silver hake small ✓
- 500 squid ✓
- 1200 Haddock ✓ 100 fry (est) ✓
- 400 Scrod ✓
- 25 Hake ✓
- 50 ^{medium} Cod ✓
- 20 Sole ✓
- 30 Sculpin ✓
- 25 scallops ✓

38 Set at 10.45 P.M. 36 F.
Towing NNW Hauled 12.15 P.M. 33 F

2 large checkers - same
proportion as last haul.

120 Skate ✓

36 dog ✓

17 monk ✓

300 flounder 1/2 good ✓

350 silver hake ✓ nearly all small.

250 squirrel ✓

800 c haddock 60 fry (est)

200 ✓ scrod

15 hake ✓

30 cod (medium) ✓

15 sole ✓

20 sculpin ✓

18 scallops ✓

July 4th

July 4th

39 Set at 1.15 Am 34 fath.
Hauled out 2.45 Am 48 fath.
Towed SW by S.

2 ~~large~~ checkers

75 Dog ✓

90 Skate ✓

18 Monk ✓

36 flounder (15 medium) ✓
10 small

250 silver hake small ✓

375 squid ✓

150 Haddock 30 fry ✓

35 Scrod ✓

12 Hake ✓

7 Cod 4 fry ✓

4 Sole ✓

20 Sculpin ✓

a few gastropods

3 Scallop ✓

125
120
70

40 Set at 3.45 AM 41 fath

Towing N.E., till 5.15 AM 18 "

108 Skate Count, } 2 large checks

200 Dog ✓

42 Munk ✓

250 Silver hake med. & small

500 Squinid ✓

75 Flounder (nearly all rusty data)

65 Sculpin ✓

365 Haddock 65 fry ✓

800 Scrod

5 Hake ✓

7 Cod ✓

9 Sole ✓

2 Branch herring ✓

1 Squid ✓

40 Scallops 9 mohoq → few gastropods

130

Largest *Merluccius*
seen 27 inches 6 lbs.

#40 Set 5.45 AM 43 F

Towed S. Hauled 7.10 34 F

1 large checker

23 Dog ✓

11 Monk ✓

42 Skate ✓

✓ 27 Sculpin

85 flounder ✓ (11 large witches next to
50 ~~small~~, 23 ~~small~~)

150 Silver hake 10% large

175 Squirrel ✓

142 Haddock 11 fry ✓

38 ✓ Scrod

2 Hake ✓

9 Cod med. ✓

23 Sole ✓

1 ✓ rdin

hermits

a few Stars

✓ 30 gastropods

2 bank clams

Scallop 1/2 ~~hr~~ ✓
Sponge 1 gholiog ✓

Dogfish $\frac{1}{2}$ lb to 15 lbs, the
latter 40 inches long

Squid run from
 $\frac{1}{2}$ lb. to $1\frac{1}{2}$ lbs.

#42 Set at 8.30 AM. 22 f.

Net turned over twice, taken in.

Set again 25 fath 8.45 AM

School of 6 or 8 blackfish 100 ft astern.

Towed NE by E Hauled 9.50 AM 53 F.

11 Dog ✓

26 Skate ✓

2 Monk ✓

20 ^{good} small flounder ✓

16 Squid ✓

12 large
40 small silver hake ✓

21 Haddock ✓

6 Scrod ✓

5 Hake ✓

0 Cod

0 Sole

5 scallop ✓

43 Set 11:25 AM 44 F.

Flowing N by E Hauled 1 P.M. 38 F

Fog closed in at noon.

- 1 Dog ✓ Squid 1 ✓
2 Skate ✓
14 good
11 small flounder ✓
50 Silver hake small ✓
1 Yoarces 8cm long
0 Squinid
30 Haddock ✓
3 Scrod ✓
2 Hake ✓
6 Cod ✓
4 Sole ✓
2 Branch herring ✓

1 Scallop ✓ 1 quohog ✓

#43 2.10 P.M. 30 fath.

Net turned over, 20
quits, and at 2.30 headed
off for Boston.

Fog lifted about 2 P.M. &
the afternoon was glorious
with cracking S.W. breeze.

July 5th Arrived Boston 6 A.M.
Went to office & got mail etc.

Phoned Dr. Bigelow.

Left on 10 A.M. boat for Gloucester.

Arrived Gloucester 12.20 P.M.

Expenses.

Boston	Baggage to wharf	25
Fare, Ste. Cap Ann, - to Gloucester		50
Lunch Gloucester		35
		<hr/>
		1.10

Finished the afternoon letters etc.

July 6th Saturday. Dr. Bigelow
came down with Mr. Mutchall.

Busy rigging nets, apparatus, etc
etc. 7th Sunday ditto - went over
to E. Gloucester & the hatchery
in the P.M.

July 8th. Dr. Bigelow came down
& joined ship. Busy with nets
& tackle.

July 9th 7 AM Scampus went
aboard whf to take water.

Got started 3 P.M. ran out
a little way, made 1 haul, and
ran back inside breakwater.

$$\begin{array}{r}
 187 \\
 776 \\
 661 \\
 \hline
 \end{array}
 \quad
 \begin{array}{r}
 -1 \\
 45 \\
 44 \\
 \hline
 \end{array}$$

$$\begin{array}{r}
 1624 \\
 90 \\
 \hline
 \end{array}
 \quad
 90$$

$$\begin{array}{r}
 1714 \overline{) 90.00} \quad (.0525) \\
 \underline{8570} \\
 4300 \\
 \underline{3428} \\
 8720
 \end{array}$$

$$\begin{array}{r}
 11 \\
 18 \\
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 33
 \end{array}$$

$$\begin{array}{r}
 33 \overline{) 1.00} \quad (.030) \\
 \underline{99} \\
 10
 \end{array}$$

$$\begin{array}{r}
 54802 \overline{) 1286.00} \quad (2.34) \\
 \underline{109604} \\
 189960 \\
 \underline{164406} \\
 255540
 \end{array}$$

$$\begin{array}{r}
 2205 \\
 6266 \\
 4790 \\
 \hline
 13261
 \end{array}$$

$$\begin{array}{r}
 821 \\
 4086 \\
 1543 \\
 \hline
 6450
 \end{array}$$

$$\begin{array}{r}
 2133 \\
 4644 \\
 4216 \\
 \hline
 10996
 \end{array}$$

$$\begin{array}{r} \cancel{13267} \\ \underline{64} \end{array}$$

$$\begin{array}{r} 6450 \\ \underline{5} \\ 32250 \end{array}$$

$$\begin{array}{r} 13261 \\ \underline{20} \\ 265220 \\ \underline{3225} \\ 109916 \end{array}$$

$$\begin{array}{r} 30707 \overline{) 4074.31326} \\ \underline{30707} \\ 100360 \\ \underline{192121} \\ 82390 \\ \underline{61414} \\ 209760 \end{array}$$

18725
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72
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53,055) 1195.00 (2.25

1061.10

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106110

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265275

- | | | | | |
|-------------------|---|--------------|----------------|----------------------------------|
| ✓ Skate | ✓ | Raja | cellata | } ? <u>not</u>
<u>entered</u> |
| ✓ " | ✓ | " | radiata | |
| ✓ " | ✓ | " | esplanteria | |
| ✓ " | ✓ | " | erinacea | |
| ✓ " | ✓ | " | laevis | |
| ✓ Rock fish | ✓ | Sebastes | marinus | ✓ |
| ✓ Branch herring | ✓ | Pomolobus | pseudoharengus | ✓ |
| ✓ Cunner | ✓ | Tautoglabrus | adspersus | ✓ |
| ✓ Sea robin | ✓ | Prionotus | carolinus | ✓ |
| ✓ 4-spot flounder | ✓ | Paralichthys | oblongus | ✓ |
| ✓ Rusty dab | ✓ | Simanda | ferruginea | ✓ |
| ✓ Window pane (?) | ✓ | Sophopsetta | maculata (?) | |

5 July 2nd 14 to 17 inches

P. V. L. H. V. 2 / 6 / 1912

Names.

✓ Haddock	1	Melanogrammus aeglefinus	✓
✓ Cod	2	Gadus collaris	✓
Silver hake	✓	Merluccius bilinearis	✓
White "	✓		
hake	3	Urophycis regius	✓
Squirrel	✓	" chuss	✓
Sole	4	Pseudopleuronectes (notation) Kendall	✓
hatch flounder	✓	Glyptocephalus cynoglossus	✓ (L)
Sand dab	✓	Hippoglossoides platessoides	✓
Plaice	✓	Paralichthys dentatus	✓
Halibut	5	Hippoglossus Hippoglossus	✓
Wolf fish	7	Anarhichas lupus	✓
Monkfish	✓	Lophius piscatorius	✓
Butterfish	✓	Paronotus triacanthus	✓
Sculpin	✓	Myoxocephalus octodecimspinosus	✓
gurnard	✓	Hemitripterus americanus	✓
horned dogfish	✓	Squalus acanthias	✓
" congo eel	✓	Yocastes anguillarum	✓
pollack	6	Pollachius virens	✓
Said lance		Ammodytes americanus	✓

pharyngeals with a double row
of teeth on each

Lateral line straight, composed
of irregular small scales.

A prominent, bony, ascending
ridge between eyes. Profile
curving down sharply from upper
eye. Upper eye too ~~is~~ small
for its large socket.

Fin rays scaly

N.B. Apparently very close to
Liopsetta fulvami (Bill) in
1+2, but counts much higher.

Large specimens abundant on
Georges Bank at this season.


Tail is different from cut, &
head is much smaller.

~~Better send some down on~~

~~see.~~

Similar blotch midway between this and caudal peduncle; another brown blotch covering caudal peduncle and extending downward and forward to the last. Caudal dusky: pectoral, ~~+~~ ventral ~~+~~ branchiostegal membrane with blackish punctulations.

B. Similar to A, but lighter in shade, and lacking the brown blotches on under side.

Outline as in *Pseudopleuronectes*
scales cycloid on both sides
tail 

front of superior eye to mid pupil of inferior eye.

lips fleshy

gill rakers short, slender 4-9

teeth close set, apparently in a single row, forming a blunt cutting edge

A Color above (right side) clay brown, with traces of small darker mottlings irregularly disposed. Dorsal & anal darker, dusky between rays, with fleshy pink ^{separate} tips to rays anteriorly & medially: caudal same color, darker between rays: lips fleshy, lighter in color: pectoral ground color at base, the membranes then becoming black, tip & distal edge whitish: ventrals, ground color with darker membranes distally.

Left side body ^{+ head} whitish with fine brown punctulations: dorsal & anal slightly darker at base, becoming blackish distally, with pink fleshy tips to rays. (freakish = a brown ^{ovate} blotch $\frac{1}{4}$ size of head on lower anterior part of body & anal; another

Slyptcephalus cynoglossus (Linn)
Witch flounder. Georges Banks

June 27 1912

No.	A ♀ ^{eggs well developed}	B. ♀ "
Total length	58.5	65.5
Std "	50	55.5
Head	103	106
depth	21.5 22.5	2.40
Total "	29.5	32.0
eye	2.5	2.6
max (sup.)	21	22
" inf	24	25
dorsal form	109	111
anul "	93	96
caudal "	19	21
Scales	135 (about)	131 (about)
length feet	60	62
" vent	29	34
pect count	11	10
Vent "	2	
Caud ped depth	39	45
Longest do ear	44	46
" st ray	44	47

Vertebrae 56-57 (small ex)

STUDENT

FILING COVER

To Bind Completed Matter



Course given by

SUBJECT:

For the
NATIONAL SEPARATE-LEAF NOTEBOOK

Patented by E. W. Hill, July 5, 1898.