

G T

ORIGINAL LOG BOOK OF THE "GANNET"

UNITED STATES FISH COMMISSION

STATION NUMBERS

(A) Numbers G 50 to G 69

Thermometers

Negretta Zambra in frame

L = Left = 63916

R = Right = 63921

3 Hydrometers

01-00, 10-20, or 20-30

♀ Sign of female

♂ " of male

Write to Dr. Bigelow once a month
and go to Cambridge if need be.
address Dr. H. B. Bigelow, Agassiz Museum, Cambridge

Objects of Investigation

1. Productivity of different spawning grounds.
2. Relation of eggs to low densities
3. Movements of pelagic fry and reactions to conditions of spring freshness. Rate of incubation.
4. Comparison of food in East and West (Mass Bay) regions, or in areas of low density.

Methods

- A. Object 1 to be determined by 20 min. hauls over various spawning grounds throughout season.
- B. Objects 2, 3, and 4 to be determined by temperature, density, and plankton collections at various levels over the areas during the season of outwash from the land.

Investigations

Carried on by

Capt. George Greenleaf
in Gulf of Maine

Sample

Station No.

9.50

Date:

Dec 18

1924

Hour: 11.00 A. M. to

11.15 A. M.

Position: Lat.

Long.

Locality:

Booth bay Hk.

Depth: 16 m

Bottom:

Sample:

Wind: Direction, NE

Force,

Sea: Smooth

Sky: Overcast

TEMPERATURES

Depth	Thermometer— Make and No.	Reading	Stem Temp.	Correc- tion	Corrected Temp.	W. Sample	Bottle used
0m	L	41	—				
0m	R	40.5	—				
15m	L	42					
15m	R	42					

Density

0m-
15m-

CURRENTS

Depth	Hour	Tide	Time down	Revolutions	Speed	Direction

Color of water:

Transparency:

REMARKS:

Many amphipods fairly numerous
mostly small. Bolinopsis flat,
many on Pleurobrachia stage but with
pink vertical lines

NETS, ETC., USED

Description	Depth	TIME		Speed
		Down	Up	
0m T1 (1/2 meter net)		20 min		
15m T2 (1/2 meter net)		20 min		

9.50
T1

11-5314

NOTES

10 cod examined ranging
from 10 - 40 lbs.
20 ♂ not ripe
20 ♀ " "
40 ♀ ripe
15 ♂ ripe
5 spent fish

11-5314

Air Temp. 20 above

Station No.

G. 50

Date:

Dec 29 1912

Hour:

1:30 P. M. to 2 P. M.

Position: Lat.

2 miles SW Long. W. Auckland Beer

Locality:

Shepherd Bay.

Depth:

60 meters Bottom: Rocky

Sample:

Wind: Direction,

SW

Force,

10 miles

Sea:

Rough

Sky:

overcast

TEMPERATURES

Depth	Thermometer— Make and No.	Reading	Stem Temp.	Correc- tion	Corrected Temp.	W. Sample	Bottle used
0m	L	39					
"	R	40					
60m	L	38.50					
60m	R	39.50					
		<u>Density</u>					
0m.	10-26						
60m.	10-26						

CURRENTS

Depth	Hour	Tide	Time down	Revolutions	Speed	Direction

Color of water:

Transparency:

REMARKS:

Temaphora quite plentiful
all very small.

11-5314

NETS, ETC., USED

Description	Depth	TIME		Speed
		Down	Up	
No nets used to day. Weather too rough. Would tear nets up.				

11-5314

NOTES

Dec 30. Boothby Id.

0. M. L. 37-5 = 36.5

0. M. R. 35.50 2 35.3

12 M L. 37-2 = 36.8

12 M R. 40-5 = 39.5

Density

Dec 30.

0 M. 25.5

0 M.

12 M. 26.0

12 M

Air. 33° above

(Cent. temp at surface 30°) 73440

Dec 31st 1924. Squirrel Island.

0. M. L. 39

" " R. 38.5

15 " L. 40°

15 " R. 39.

Density

0. M. 1026

30 " 1026.1

Air 24' above.

Centg. Temp. ^{C 2.5 below} = 32.5 F 34°

L. rough for net to day.

Air temp 29 F

Station No. G 51

Date: Jan 6

1915

Hour: 1-30 P. M. to 1-50 P. M.

Position: Lat. Station 2. Long. Cuckolds Bell

Leaving E. by S. Hendricks Head Light
Locality: N. by E.

Depth: 30 mtrs Bottom: Mud Sample:

Wind: Direction, E. N. E. Force, 15 miles

Sea: Rough Sky: overcast

TEMPERATURES

Depth	Thermometer— Make and No.	Reading	Stem Temp.	Correc- tion	Corrected Temp.	W. Sample	Bottle used
0.9m	L	35½					
" "	R	36					
30.	L	40					
30.	R	40½					
		<u>Density</u>					
07m.	1026						
30.	10264						

CURRENTS

Depth	Hour	Tide	Time down	Revolutions	Speed	Direction

Color of water:

Transparency:

REMARKS:

Zenophora plentiful.

NETS, ETC., USED

Description	Depth	TIME		Speed
		Down	Up	
0, M. T. 1. ½ Meter net		20 minutes		
30 " T. 2 1 ft net		" "		
G. 51.				

11-5314

NOTES

No fishing boats out
consequently could get no fish
to examine to day.

The weather is too rough for
either netting, or trawling to day.

There seemed to be quantities of
the material that we have sorted
in our bottles omitted.
T. 1 and T. 2. G. 51.

11-5314

Station No.

G. 52

Date:

Jan 14 1915

Hour:

10 A.M. to 10:00 P.M.

Position: Lat.

Station (2) Long. Buckle Bay

Locality:

E. by S. Hendrick's Head light N. by E
Shepsett Bay

Depth:

30 m

Bottom:

Soft

Sample:

Wind: Direction,

N.N.W.

Force,

light

Sea:

Old sea on

Sky:

Clear

TEMPERATURES

Depth	Thermometer— Make and No.	Reading	Stem Temp.	Correc- tion	Corrected Temp.	W. Sample	Bottle used
07M.	R. 37	37					
"	L 37	37					
30 "	R 39	39					
30 "	L 39	39					
		<u>Density</u>					
07M.	11256						
30 "	1026						

CURRENTS

Depth	Hour	Tide	Time down	Revolutions	Speed	Direction

Color of water:

Transparency:

REMARKS:

Very few tenebrones.
Got pieces of some kind from surface
net. Also a different kind of seed in
30 meters down net

NETS, ETC., USED

Description	Depth	TIME		Speed
		Down	Up	
07M. T 1. 1/2 Meters net		20 minutes		
20 " T 2. 1 foot net		"	"	
G. 52				

11-5314

NOTES

We seem to get a different
kind of material in both the
surface and 20 meters down
to us to day. Only one tenebrone
in surface net. And it is a
beauty!

No fishing boats out to
day in this locality. so
cannot look over any fish.

11-5314

Station No. *854* Date: *Jan 31* 19*25*

Hour: *9-30 A.M. to 10 AM.*

Position: Lat. *Station 2)* Long.

Locality: *Sheepscote Bay*
at Mass Bell E by S. Hendricks
Head light N by E

Depth: *30 meters* Bottom: *Soft* Sample:

Wind: Direction, *NW* Force, *Strong*

Temp air *29*
Sea: *Choppy* Sky: *Clear*

TEMPERATURES

Depth	Thermometer— Make and No.	Reading	Stem Temp.	Correc- tion	Corrected Temp.	W. Sample	Bottle used
<i>0m.</i>	<i>Y+B.R.</i>	<i>35</i>					
<i>0.7m</i>	<i>L</i>	<i>35</i>					
<i>31 "</i>	<i>R</i>	<i>35</i>					
<i>32 "</i>	<i>L</i>	<i>35</i>					
	<i>Antiquity</i>				<i>1/2 below zero. (surface)</i>		
<i>0m.</i>	<i>10264</i>						
<i>30 "</i>	<i>10268</i>						

Density

CURRENTS

Depth	Hour	Tide	Time down	Revolutions	Speed	Direction

Color of water: Transparency:

REMARKS: *No terns observed to days*

NETS, ETC., USED

Description	Depth	TIME		Speed
		Down	Up	
<i>0.7m T-1-1/2 meters net</i>				
<i>30 " T-2 1 foot "</i>				

11-5314

NOTES

Wind is heavy from NW cold and too rough for any fishing boats to get out today. This is the first day this week that we could get a chance to tow our nets on acct of stormy and rough weather.

854

11-5314

Station No. *S. 55* Date: *Feb 4* 191*5*

Hour: *9:30 A.M.* to *10 A.M.*

Position: Lat. *Station (2)* Long. *Shupard Pt.*
Archels Bell Ex S. Sandwick Shd
 Locality: *Light House N by E*

Depth: *00 met* Bottom: *Loys* Sample:

Wind: Direction, *N.E.* Force, *Strong*

Sea: *Choppy* Sky: *Cloudy overcast*

TEMPERATURES

Depth	Thermometer— Make and No.	Reading	Stem Temp.	Correc- tion	Corrected Temp.	W. Sample	Bottle used
<i>07M</i>	<i>R</i>	<i>33</i>					
<i>10</i>	<i>L</i>	<i>33.20</i>					
<i>307M</i>	<i>R</i>	<i>35</i>					
<i>40</i>	<i>L</i>	<i>35</i>					
		<i>centigrade 2/3</i>					
		<i>Density</i>					
<i>07M</i>	<i>11262</i>						
<i>30r</i>	<i>11263</i>						

CURRENTS

Depth	Hour	Tide	Time down	Revolutions	Speed	Direction

Color of water:

Transparency:

REMARKS:

*Fish eggs of some kind was
 caught to day from bottom or
 30 meters deep.*

11-5314

NETS, ETC., USED

Description	Depth	TIME		Speed
		Down	Up	
<i>0. Meter T. 1-1/2 Meter net</i>				
<i>30 " T. 2-1/2 "</i>				

11-5314

NOTES

*Wind is strong from N.E. and
 snowing, very choppy sea
 Temperature air 16 above zero.
 No chance to see any fish
 to day. No fishing boat out
 here. Fish eggs was noticed
 to day in our tows.*

Station No. *L. 56* Date: *Feb 9* 191*5*

Hour: *1230 P.* M. to *1 P.* M.

Position: Lat. *Station 2* Long. *Sheepshead Bay*
back of Bell St S. Hendrick's Head

Locality: *light N. by E*
air Temp 34

Depth: *30 meters* Bottom: *Hard* Sample:

Wind: Direction, *North* Force, *light*

Sea: *Smooth* Sky: *Clear*

TEMPERATURES

Depth	Thermometer— Make and No.	Reading	Stem Temp.	Correc- tion	Corrected Temp.	W. Sample	Bottle used
<i>0.7m</i>	<i>R</i>	<i>33</i>					
<i>"</i>	<i>L</i>	<i>32.80</i>					
<i>30.</i>	<i>R</i>	<i>33</i>					
<i>"</i>	<i>L</i>	<i>33</i>					
<i>Centigrade of</i>							
<i>Density</i>							
<i>0.7m.</i>	<i>10262</i>						
<i>30.</i>	<i>10262</i>						

CURRENTS

Depth	Hour	Tide	Time down	Revolutions	Speed	Direction

Color of water:

Transparency:

REMARKS:

11-5314

*Abundance of red eel from 1 ft net
down 30 meters.
Cod and other fish eggs from 1/2 meter net.*

NETS, ETC., USED

Description	Depth	TIME		Speed
		Down	Up	
<i>0. Meter T 1-1/2 meter net</i>				
<i>30 " T 2-1/2 "</i>				

11-5314

NOTES

*Wind very light from N
warm and fine to day.
We got quite a lot of fish eggs to
date. I sold them out here.
Air Temperature, 34 below water
33 with density top and bottom
10262.*

Station No.

G. 57

Date:

Feb. 16

1915

NETS, ETC., USED

Hour:

10 A. M. to 1030 P. M.

Position: Lat.

Station 2

Long.

Shepsett Bay

Locality:

Anchorage Bell & by S. Hendershott Head
Light bearing N. by E

Depth:

30 meters

Bottom:

Soft

Sample:

Wind: Direction,

N.

Force,

Very light

Sea:

Old sea on

Sky:

Cloudy.

TEMPERATURES

Depth	Thermometer— Make and No.	Reading	Stem Temp.	Correc- tion	Corrected Temp.	W. Sample	Bottle used
0 M	R.	34					
"	L.	34					
30 "	R.	33					
30 "	L.	33					
		Density					
1 M	1025.4						
30 "	1026.6						

CURRENTS

Depth	Hour	Tide	Time down	Revolutions	Speed	Direction

Color of water:

Transparency:

REMARKS:

abundance of tenebrions. Red sea
cod eggs and several kinds of larval fishes
were obtained from this tow.

Description	Depth	TIME		Speed
		Down	Up	
0 Meters T-1-1/2 meter net				
20 " T-2-1/2 net				

11-5314

NOTES

Wind very light, old sea on
Air temperature 32°
Larval fish of some kind was taken
from both of the above tows, also
cod eggs.
Trawlers in the Bay are getting
very few fish and these are
small cod and cusk, none was
found ripe to day. About 57 fish were
clocked here, ranging from 3 to 6 lbs ea.

Hauled our cod net Feb 20th
Net was set between Harding
ledge buoy and Synner Mark Idld.
on neck of bottom, Shepsett River.
We caught five cod ranging in
weight from 14 to 40 pounds
each. Looked them over carefully
one fish would be ripe in about three
weeks, all the others were hard
killed. Stomachs of all contained
flounders, and sculpin.

11-5314

Station 5 on chart.

Station No. 59 Date: Mar 10 1925

NETS, ETC., USED

Hour: 3-30 P.M. to 3-50 P.M.

Position: Lat. 17 mile North Long. 2 Southward
End of Bowers Island

Locality: Sheppard River

Depth: 20 met Bottom: hard Sample:

Wind: Direction, S.E. Force, heavy

Sea: Rough Sky: cloudy & overcast

TEMPERATURES

Depth	Thermometer— Make and No.	Reading	Stem Temp.	Correc- tion	Corrected Temp.	W. Sample	Bottle used
0M	R	36					
" "	L	36					
20M	R	36.4					
" "	L	36.3					
		Density.					
90900		1026					
00		1024					

CURRENTS

Depth	Hour	Tide	Time down	Revolutions	Speed	Direction

Color of water: Transparency:

REMARKS:

Great abundance of Terephos
also several young fish

Description	Depth	TIME		Speed
		Down	Up	
0.5M T-1 - 1/2 meter net				
150 T-2 - 1 foot net				

11-5314

NOTES

Wind E.S.E. fresh breeze,
very choppy.
This is first tow for season
over station five and six.
no fishing boats out anywhere
to day.
Several young fish was taken
to day from this tow. all from
our 1/2 meter net on surface

Station No. *S. 60*

Date: *Mar 11* 191*5*

NETS, ETC., USED

Hour: *2:40 P.M. to 3 P.M.*

Position: Lat. *3/4 mile* Long. *N. 77. E*

Locality: *Lucerdes Lighthouse*

Depth: *30 fms* Bottom: *spt* Sample:

Wind: Direction, *SSE* Force, *light*

Sea: *heavy* Sky: *cloudy or overcast*

TEMPERATURES

Depth	Thermometer— Make and No.	Reading	Stem Temp.	Correc- tion	Corrected Temp.	W. Sample	Bottle used
<i>07m</i>	<i>R</i>	<i>36</i>					
<i>" "</i>	<i>L</i>	<i>36</i>					
<i>20 "</i>	<i>R</i>	<i>37</i>					
<i>" "</i>	<i>L</i>	<i>37</i>					
		<i>Density</i>					
<i>07m</i>		<i>10258</i>					
<i>30 "</i>		<i>1026</i>					

CURRENTS

Depth	Hour	Tide	Time down	Revolutions	Speed	Direction

Color of water: Transparency:

REMARKS:

Fish + eggs scarce.

Description	Depth	TIME		Speed
		Down	Up	
<i>P. T. 1/2 Meter net</i>				
<i>T-2-1 foot net</i>	<i>20 meters deep.</i>			

11-5314

NOTES

Got fish in 20 meter net to deep and fish eggs in surface net
Wind SSE fresh breeze and rough.

Station No.

L. 61

Date:

Mar 20

191

NETS, ETC., USED

Hour: 4 P. M. to 4:30 P. M.

Position: Lat. Section (2) on Long. chart
Light buoys near E by S. and
Locality: Hendricks Head N. by E.

Depth: 30 meters Bottom: soft Sample:

Wind: Direction, N.W. Force, Strong breeze

Sea: Heavy old sea Sky: clear

TEMPERATURES

Depth	Thermometer— Make and No.	Reading	Stem Temp.	Correc- tion	Corrected Temp.	W. Sample	Bottle used
0.7m	R.	37					
"	L	37					
30 "	R	38					
" "	L	38.					
5 meters	10242						
30 "	10262						

CURRENTS

Depth	Hour	Tide	Time down	Revolutions	Speed	Direction

Color of water:

Transparency:

REMARKS:

Practically no telephores this
tow. Few cod eggs

Description

Depth

TIME

Down

Up

Speed

T. 1. 1/2 Meters net 10 meters

T. 2 - 1 Foot net. 25 meters

11-5314

NOTES

not very many eggs today
and no larval fish

11-5314

Station No. *G. 62* Date: *Mar 24* 191*5*

Hour: *2 30* . M. to *3 P.* M.

Position: Lat. *Station (2)* Long. *Shupper Bay*

beckalder light house bears E by S.

Locality: *Hendrick's light N by E*

Depth: *30 Meters* Bottom: *Loose* Sample:

Wind: Direction, *S. W* Force, *fresh breeze*

Sea: *choppy* Sky: *clear.*

TEMPERATURES

Depth	Thermometer— Make and No.	Reading	Stem Temp.	Correc- tion	Corrected Temp.	W. Sample	Bottle used
<i>0m</i>	<i>R.</i>	<i>37</i>					
<i>" "</i>	<i>L</i>	<i>37</i>					
<i>30"</i>	<i>R</i>	<i>35</i>					
<i>" "</i>	<i>L</i>	<i>35</i>					

Density

0 meters 1024.4
30 " 1026.2

CURRENTS

Depth	Hour	Tide	Time down	Revolutions	Speed	Direction

Color of water:

Transparency:

REMARKS:

a few eggs, no larval fish

NETS, ETC., USED

Description	Depth	TIME		Speed
		Down	Up	
<i>T. 1. 0 Meters. 1/2 Meter net</i>				
<i>T. 2. 25 meters deep 1 ft net</i>				

11-5314

NOTES

11-5314

Station No.

G. 63

Date:

Apr 1

1915

G. 63

NETS, ETC., USED

Hour: 2 PM . M. to 2-40 P. M.

Position: Lat. Station (4) in Long. Chart

Locality: 1 mile N¹/₂ E, Hardwick Head
light House, Sheepscot River

Depth: 30 meters Bottom: hard Sample:

Wind: Direction, S W. Force, Good breeze

Sea: choppy Sky: clear

TEMPERATURES

Depth	Thermometer— Make and No.	Reading	Stem Temp.	Correc- tion	Corrected Temp.	W. Sample	Bottle used
30m	R	36					
"	L	36					
07m	R	38					
"	L	38					
		<u>Density</u>					
30 meters		1025.8					
0 "		1021.2					

CURRENTS

Depth	Hour	Tide	Time down	Revolutions	Speed	Direction

Color of water:

Transparency:

REMARKS:

Best quantities of tempshores
few eggs and no large fish

11-5314

Description

Depth

TIME

Down

Up

Speed

T. 1 - 1/2 Meters net Surface
T. 2 1/2 " " 20 meters deep
T. 3 - 1 foot " 30 "

11-5314

NOTES

Towed from Station 3 to and above
station (4) as charted.

Set our Cod net to day
Near Harding ledge below Sheepscot
River. This promises to be the only
way that we can get a chance
to see any fish. As each day
takes us at least 8 hours to do our
work and the spawntaken are used
by the day.

Station No. *G 64*Date: *May 3*191*5*Hour: *10 30 A. M.* to *11 A. M.*Position: Lat. *Sheepscoot Bay* Long.Locality: *W. N. W. from Buckle's Bell, S. W. of Hendrick's Shoal light*Depth: *20 mtr* Bottom: *Rocky* Sample:Wind: Direction, *S W* Force, *strong*Sea: *choppy* Sky: *overcast & foggy*

TEMPERATURES

Depth	Thermometer— Make and No.	Reading	Stem Temp.	Correc- tion	Corrected Temp.	W. Sample	Bottle used
<i>20 m.</i>	<i>R.</i>	<i>41</i>					
<i>" "</i>	<i>L</i>	<i>41</i>					
<i>0 mtr</i>	<i>R.</i>	<i>44</i>					
<i>" "</i>	<i>L</i>	<i>44</i>					
		<i>Density</i>					
<i>20 mtr.</i>		<i>1027.8</i>					
<i>0 "</i>		<i>1023.4</i>					

CURRENTS

Depth	Hour	Tide	Time down	Revolutions	Speed	Direction

Color of water:

Transparency:

REMARKS:

*No telephones this hour.
Plenty of Red eels and eggs.*

11-5314

NETS, ETC., USED

Description	Depth	TIME		Speed
		Down	Up	
<i>0. Meter T. 1 - 1/2 Meter net</i>				
<i>20 " T-2 1 foot net.</i>				

11-5314

NOTES

*Could not set net as ours was
rotten from the place where we
set it last in Sheepscoot Bay.
Cod are very ripe here now.*

1. At what date did the Cod strike at Cape Elizabeth and at Sheepscot Bay?
2. Examine 50 or 100 Cod, weekly if possible from Dec - May. at Sheepscot Bay. Also notes on Stomach contents. Also if grounds where netting is taking place, can be marked, compare number of ripe Cod with ^{same} number caught on trawls. (Count 100 at random)
3. Once ~~a month~~ ^{every two weeks} set net in Sheepscot Bay and count Cod; also number of ripe ♂ & ♀. get percentage in 100 taken same day on trawl. this will give data on whether Cod are hitting when ripe as well as condition of the majority.
4. One trip to Belfast Bay in Spring just before Flounder work begins. Make one or more stations in center of area. Also one trip to Belfast Bay in May if possible.
5. Seining in likely spots along shore from May on Petersen trawl from April on at 30 meters or lower.
6. One trip to Cape Elizabeth after Cod start spawning. Examine propagation of ripe Cod in nets and make one or more stations

Problems

1. Determine minimum density for Cod eggs & larvae.
2. Try red ~~seed~~ (Calanus) and Cod fry.
1 - 12 Cod fry and 4 Calanus in glass jar. Examine and count each throw for six hours.