

Japan Coast.

4th May - 16th May
1900.

D: 3695 - D: 3735.

$$\begin{array}{r} 496 \\ 20 \\ \hline 9960 \end{array}$$

$$\begin{array}{r} 498 \\ 20 \\ \hline 9960 \end{array}$$

	2500	
	2600	
	2700	
	2800	
	2900	
	3000	
	3100	
	3200	
	3300	
	3400	
	3500	
	3600	
	3700	
	3800	
	3900	
	4000	

SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25				
50				
100				
200				
300				
400				
500				
600				
700				
800				
900				
1000				

REMARKS:

Next numbers 3695.
 4012.

Sta. 3695 D- Date 4 May 1900
 Machine. Reel.

Turns 250 Cor. + 9 Depth 259 fms.
 Shot or lead 26 lb. to 110 fms.
 Bottom gn. M. fm. S.
 Bottom temperature }
 No. of thermometer } none Cor.
 Corrected temperature }
 Air 61 Surface 64 Drift { NE (true)
 Trawl or dredge 8' Beam trawl { 1 mile

SOUNDING WIRE.		TURNS.	DREDGE ROPE.	
DOWN.	UP.		DOWN.	UP.
7.50.00	7.55.20	0	8-18.15	7.59.30
50.50	54.10	100	8-24.30	05.10
57.35	53.00	200	8-30.45	2.02.
7.57.50	7.12.00	250	8.32.20	8.57.00
		300		
		400		
		500		
		600		
		700		
		800		
		900		
		1000		
		1100		
		1200		
		1300		
		1400		
		1500		
		1600		
		1700		
		1800		
		1900		
✓ Ophiurans, about 5 sps, 1 quart;		2000		
✓ Star (Solaster)		2100	1 specimen.	
✓ Dentalia abundant;		2200	✓ Annelids	
about 5 sps;		2300	Pennatulid,	
1 specimen;		2400	Sea Anemones,	
about 4 species, one voluta.				

4³/₁₀ m N. 80° E. (true) from Taurangi
Saki St. No. (H.O. # 1291.)

010
Net
3

	2500	Surface Net.
	2600	
	2700	35° 09' 20" N
	2800	139° 46' 05" E.
	2900	
	3000	
	3100	
	3200	
	3300	
	3400	
	3500	
	3600	
	3700	
	3800	
	3900	
	4000	

SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25	Trawl net badly torn on bottom. Full of green mud from which specimens were washed out. Unbent torn net & bent on new one; old one to be repaired.			
50				
100				
200				
300				
400				
500	—			
600	Dragged trawl up slope and when finished had not more than 110 to 120 fms. depth.			
700				
800				
900				
1000				

Contents of haul.

REMARKS:

- ✓ 4 sps Fishes, including several Macrurus, a Beryx, and few small fishes.
- ✓ 2 sps Holothurians, including 1 specimen of deep-sea type; ✓ Echini, 2 sps, spatangida abundant; small crabs, 5 sps; ✓ Shrimps 5 sps, some large Palaemonidae; ✓ Gastropods, about 5 sps; ✓ Lamellibranchs, many, abt 5 sps;

No. No station. Date 4 May 1900

Tanner Machine. Reel.

Turns 49 Cor. + 2 Depth 57 fms.

~~Shot or lead~~ 26 pound.

Bottom Cr. gy. sand. sh. - p.

Bottom temperature

No. of thermometer } none Cor.

Corrected temperature

Air 60 Surface 64 Drift

Trawl or dredge

SOUNDING WIRE.		TURNS.	DREDGE ROPE.	
DOWN.	UP.		DOWN.	UP.
11.39.		0		
40.		49 100		
		200		
		300		
		400		
		500		
		600		
		700		
		800		
		900		
		1000		
		1100		
		1200		
		1300		
		1400		
		1500		
		1600		
		1700		
		1800		
		1900		
		2000		
		2100		
		2200		
		2300		
		2400		

3 1/2 = N 64° W. (true) from Suno Saki.
(Oct. 1291.)

OK
H.C.H.
3

2500
2600
2700
2800
2900
3000
3100
3200
3300
3400
3500
3600
3700
3800
3900
4000

35° 00' N
139° 41' 40" E-

496
49
447

12
10
2
49
51

SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25				
50				
100				
200				
300				
400				
500				
600				
700				
800				
900				
1000				

REMARKS:

Hutchinson

No. 3696 55 Date 5th May 1900

Sigsbee Machine. #3 Reel.

Turns 455 Cor. + 46 Depth 501 fms

Shot or lead 35 # to 749.

Bottom Green Mld Vol Ash + sand

Bottom temperature 39°

No. of thermometer 92446 Cor.

Corrected temperature

Air 72 Surface 65 Drift {1 mile. S x E (map) ->

Trawl or dredge 8 ft Beam Tanner

SOUNDING WIRE.

DREDGE ROPE.

DOWN.

UP.

TURNS.

DOWN.

UP.

9- 04.20

19.15

0

9- 25.30

34.20

05.50

17.50

100

31.40

28.50

07.05

16.30

200

37.50

24.15

08.25

15.10

300

43.05

20.10

09.50

13.35

400

48.10

15.50

10.40

9- 12.50

455

52.30

11.20

500

57 =

06.20

600

700

10- 01.25

11- 01.25

742

800

03 =

56 =

842

09.35 - 13 =

900

19.05

10- 51 =

1000

1100

1200

1300

1400

1500

1600

1700

1800

1900

2000

2100

2200

2300

2400

Manazuru Zaki, N 70° W (true) 4 $\frac{2}{3}$ m.

OK
Feb
3

316° E (true)

2500
2600
2700
2800
2900
3000
3100
3200
3300
3400
3500
3600
3700
3800
3900
4000

~~Surface Net~~
Jap. Chart #80.
35° 06' 50" N
139° 15' 00" E.

5035	260
455	214
4580	46
	455
	501

SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25				
50				
100				
200				
300				
400	Clean haul.			
500	Contents of net -			
600	✓ About	8 spo	Fishes.	
700	✓ 5 spo.	Crustacea	macrura.	
800	✓ 1 "	Dentalium.		
900	✓ 1 "	Pontalisia.	(several.)	
1000	✓ 2 "	Holothuria		
	✓ 5 "	Gastropods.		

REMARKS:

- ✓ 5 " Ophiurans.
- ✓ About 10 spo. Annelids.
- ✓ 6 spo. Stars.

Hutchinson.

No. *no station* Date *5th May 1900*

Sigsbee Machine. # *3* Reel. *Built Up*

Turns *680* Cor. + *69* Depth *749 fms*

Shot or lead *35[#]*

Bottom *blue vol. M.*

Bottom temperature

No. of thermometer

Corrected temperature

Air *68* Surface *65* Drift

Trawl or dredge

SOUNDING WIRE.			DREDGE ROPE.	
DOWN.	UP.	TURNS.	DOWN.	UP.
<i>11- 38.20</i>	<i>56.50</i>	0		
<i>39.10</i>	<i>55.55</i>	100		
<i>40.15</i>	<i>54.55</i>	200		
<i>41.15</i>	<i>53.50</i>	300		
<i>42.20</i>	<i>52.45</i>	400		
<i>43.30</i>	<i>51.30</i>	500		
<i>44.50</i>	<i>49.05</i>	600		
<i>46 = 11- 48.10</i>		<i>680</i> 700		
		800		
		900		
		1000		
		1100		
		1200		
		1300		
		1400		
		1500		
		1600		
		1700		
		1800		
		1900		
		2000		
		2100		
		2200		
		2300		
		2400		

Manazuru Zaki, N52° W. (true) 7.35 m

OK
H.C. 7

2500
2600
2700
2800
2900
3000
3100
3200
3300
3400
3500
3600
3700
3800
3900
4000

Jap. Chart 80.
35° 03' 55" N
139° 16' 50" E.

5035 260
680 191
4355 69
680
749
fm

SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25				
50				
100				
200				
300				
400				
500				
600				
700				
800				
900				
1000				

REMARKS:

Staley

No. *no station* Date *5th May 1905*
Sigsbee Machine. *#3* Reel. *built up*
 Turns *239* Cor. + *24* Depth *263 fms.*
 Shot or lead *35 lb*
 Bottom *blue vol. M.*

Bottom temperature
 No. of thermometer _____ Cor. _____

Corrected temperature
 Air *73* Surface *65* Drift _____

Trawl or dredge *for heavy samples*

SOUNDING WIRE.		TURNS.	DREDGE ROPE.	
DOWN.	UP.		DOWN.	UP.
<i>1-11.00</i>	<i>1-20.30</i>	<i>0</i>	<i>1.24.40</i>	<i>1.31.30</i>
<i>12.15</i>	<i>19.25</i>	<i>100</i>	<i>29.30</i>	<i>1.31.00</i>
<i>13.25</i>	<i>18.00</i>	<i>200</i>		
<i>1-14.10</i>	<i>1-17-30</i>	<i>239</i>		
		<i>300</i>		
		400		
		500		
		600		
		700		
		800		
		900		
		1000		
		1100		
		1200		
		1300		
		1400		
		1500		
		1600		
		1700		
		1800		
		1900		
		2000		
		2100		
		2200		
		2300		
		2400		

Manazuru Zaki, S. 22° N. (true) 5.8 m

OK
Rec'd
2

2500
2600
2700
2800
2900
3000
3100
3200
3300
3400
3500
3600
3700
3800
3900
4000

Jap. chart 280.

35° 14' 15" N

139° 11' 10" E

503

5035 260

239 236

4796 24

239

263

SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25				
50				
100				
200				
300				
400	Lowered trawl to 100 fms - but wind coming up fresh (in squalls) from S, made the other side the leeward, & with shore close aboard, deemed it best to cease operations.			
500				
600				
700				
800				
900				
1000				

REMARKS:

50 getting bottom wire pumped
up but did not come
away — look for hook at
this point. At 1.04 wire in
perhaps wire, did not get bottom
only 100 fms. down.

No. 3697

Date

5 May 1900

Machine.

Reel.

Turns 322

Cor. +

23

Depth

355 fms

Shot or lead

35 lb

Bottom

dk. gy. M. vol. S.

Bottom temperature

No. of thermometer

none

Cor.

Corrected temperature

Air

67

Surface

65

Drift

{ 3/4 mile

{ 1/2 mile

Trawl or dredge

Dredge

S. M. S. S. S.

SOUNDING WIRE.

DREDGE ROPE.

DOWN.

UP.

TURNS.

DOWN.

UP.

1.52.30 2.02.30

0

2.07.30 3.09.40

53.40 2.01.10

100

12.50 2.15.10

55.00 59.50

200

18.10 3.00.45

56.20 58.40

300

22.55 56.40

1.56.40 1.56.20

400

2.27.35 2.52.40

500

600

700

800

900

1000

1100

1200

1300

1400

1500

1600

1700

1800

1900

2000

2100

2200

2300

2400

1 sps.

2 sps. Sponge

1 Brachiopod

Cephalopod Eggs.

Phoronima.

(Caul Acanthascus)

(Maldanella)

Manazuru Zaki, S. 26° N (true) 6 mile

2500
2600
2700
2800
2900
3000
3100
3200
3300
3400
3500
3600
3700
3800
3900
4000

Jap. Chart #80.

35° 14' N
139° 12' 30" E.

81
H.C. 2

Dredged in 265
to 120 fms.

N 70° W. (true)

5035 260

322 217

4713 33

322

3557

mu

SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25	Towed trawl and stood inshore on course N N W. (psc) shooting the water, the net taking the bottom at about 265 fms. and from the bearing is doubtless practically the same location as the preceding station.			
50				
100				
200				
300				
400	Contents of net.			
500				
600	5 or 6 sps. Fishes.			
700				
800	6 sps. Crustacea macrura.			
900				
1000	6 or 7 " anomura.			
	2 sps. Echini (about 15 Pountalisia.)			
	REMARKS:			
	1 " Isopods.			
	1 " Crinoid.			
	1 " Barnacle (fan.)			
	1 " Pycnogonids.			
	3 " Ophiurans.			
	5 or 6 " Annelids.			
	1 " Pyrosoma.			

No. 3698 Date 5 May 1900
 Machine. #3 Reel. Built up
 Turns 139 Cor. + 14 Depth 153 fms
 Shot or lead 35 pound
 Bottom green mud vol. s. - ash
 Bottom temperature
 No. of thermometer } none Cor.
 Corrected temperature
 Air 67 Surface 65 Drift N 1/4 E (long)
 Trawl or dredge 8' Beam. 1 mile.

SOUNDING WIRE.

DOWN.

UP.

TURNS.

DREDGE ROPE.

DOWN.

UP.

4.23	27.10	0	4.31.20	5.46.00
24.20	.45	100	35.50	41.40
25.00	4.26.10	139	39.55	36.55
		200	44.25	32.10
		300	46.40	
		350	49.20	5.29.35
		400		
		500		
		600		
		700		
		800		
		900		
		1000		
		1100		
		1200		
		1300		
		1400		
		1500		
✓ 1 sp. Tunicates			many	
✓ abt 5 sps. Gasteropods				
✓ 5 " Lamellibranchs				
✓ 1 sp. Interopneusta				
✓ 1 " Brachiopods				
		2000		
		2100		
		2200		
		2300		
		2400		

Manazuru Zaki, N. 8° N. (true) 4.5 m-

OK
H.C.B.
24

2500
2600
2700
2800
2900
3000
3100
3200
3300
3400
3500
3600
3700
3800
3900
4000

Jap. Chart #80,

35° 04' N

139° 10' 25" E

5035 260

139 246

4896 14

139

153

N 84° W. (true)

Contents of net:

SERIAL TEMPERATURES

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25	✓ 2	ops. Flounders.		
50	✓ 5	" other Fishes.		
100	✓ 6	" Crustacea - anomura		
200	✓ 4	" macrura		
300	✓ 3	" brachyura		
400	✓ 2	" Amphipods (inclg Phronima)		
500	✓ 1 or 2	sp. Pycnogonids		
600	✓ 4	sp. Ophiurans		
700	✓ 1	" Star		
800	✓ 1	" Crinoid		
900	✓ 1	" Pyrosoma		
1000	✓ 2	" Echini.		

✓ 1 Solitary Coral

REMARKS:

✓ 1 sp. Nemertina

✓ 2 " Hydroids

✓ 1 " Sponge

✓ 1 " Pennatulids

✓ 10 " Annelids

✓ 1 " Cephalopods

13 " Holothurians

Sutchinson Pat. Log 73 =

No. *3699* Date *6 May 1900*
Sigsbee Machine. # *3* Reel. Built up.
 Turns *660* Cor. + *66* Depth *726 fms*
 Shot or lead *35 #* to *400 fms.*
 Bottom *Gray Vd Mud + Vd Pav.*
 Bottom temperature }
 No. of thermometer } *None* Cor.
 Corrected temperature }
 Air *66* Surface *60* Drift *SSS 1 1/2 m*
 Trawl or dredge *5 ft Beam Tanner*

SOUNDING WIRE.		TURNS.	DREDGE ROPE.	
DOWN.	UP.		DOWN.	UP.
<i>1- 11.10</i>	<i>1- 29 =</i>	0	<i>1- 43-50</i>	<i>4. 19.45</i>
<i>12.15</i>	<i>27.50</i>	100	<i>48-55</i>	<i>14.50</i>
<i>13.15</i>	<i>26.45</i>	200	<i>53-05</i>	<i>10.45</i>
<i>14.20</i>	<i>25.40</i>	300	<i>57.30</i>	<i>07.00</i>
<i>15.20</i>	<i>24.20</i>	400	<i>2: 03.25</i>	<i>4. 07.55</i>
<i>16.30</i>	<i>22.45</i>	500	<i>07.25</i>	<i>58.20</i>
<i>17.55</i>	<i>21.15</i>	600	<i>11.15</i>	<i>53.00</i>
<i>1. 18.55</i>	<i>1- 20.20</i>	<i>660</i>	<i>14.50</i>	<i>47.50</i>
		700	<i>19.45</i>	<i>41.25</i>
		800	<i>24.10</i>	<i>34.40</i>
		900	<i>28.20</i>	<i>3: 28.10</i>
		1000		
		1100		
		1200		
		1300		
		1400		
		1500		
		1600		
		1700		
		1800		
		1900		
		2000		
		2100		
		2200		
		2300		
		2400		

Port Anan } S. 74° E. (true) 5.6 miles
Entrance to }

OK
H. 7. 2

S 64° E (true)

2500
2600
2700
2800
2900
3000
3100
3200
3300
3400
3500
3600
3700
3800
3900
4000

Jap. chart # 80.

34° 51' 30" N
138° 39' 10" E

5035	260
660	194
4375	66
	660
	726
	1

SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25	Contents of net:			
50				
100	✓ Obolus -	5	sp.	
200	✓ Obolus -	1	"	
300	✓ Actinia	2	"	
400	✓ Annelids	5	"	
500	✓ Hydroids	1	"	
600				
700	✓ Maerulus -	1	sp.	
800				
900				
1000				

REMARKS:

Commenced hauling it at 3:00.10
Turn in 15 fms & found net to
be foul. They started 10 fms &
commenced hauling in again at 3:22
left at 3:32.
Net upside down - Kelp frame
badly twisted. Net lost turn

77.5

007.

No.

3700 55-

Date

7th May 1900

Tanner

Machine.

Reel.

Turns

60

Cor. +

3

Depth

63 fms

Shot or lead

26 pounds

Bottom

vl Mud & Sand

Bottom temperature

No. of thermometer

none

Cor.

N 10° E 1/2 mi

Corrected temperature

(N 10° E 1/2 mi)

Air

63

Surface

63

Drift

5/6 mile

Trawl or dredge

Coral chains - single swabs

SOUNDING WIRE.

DOWN.

UP.

TURNS.

DREDGE ROPE.

DOWN.

UP.

ann

6.53.10

6.55.00

60°

ann

7.02.30

7.40.30

6.53.40

100

7.07.55

7.36.10

200

300

400

500

600

700

800

900

1000

1100

1200

1300

1400

1500

1600

1700

1800

1900

2000

2100

2200

2300

2400

Seno Umi, N 4° E, (true) 2 miles.

	2500	Jap. Chart 80.	
	2600	34° 42' 50" N.	
	2700	138° 31' 10" E.	
	2800		
	2900		
	3000		
	3100	496	12
	3200	60	9
	3300	436	3
	3400		60
	3500		63
	3600		
	3700		
	3800		
	3900		
	4000		

SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25	Contents of net -			
50				
100	✓ 2 sps	Fishes.		
200	✓ 8 "	Crustacea	anomura	
300	✓ 4 "	"	brachyura	
400	✓ 2 "	Stars		
500	✓ 4 "	Ophiurans		
600	✓ 2 "	Amphipods		
700	✓ 1 "	Actinian		
800	✓ 2 "	Gorgonians		
900	✓ 5 "	Sponges (1 small Euplectella.)		
1000	✓ 1 "	Hydroids		
	✓ 2 "	Polyzoa		
REMARKS:				
	✓ 2 "	Lamellibranchs		
	✓ 2 "	Gasteropods		
	✓ 4 "	Annelids.		

Hutchinson

No. *3701 D.* Date *7 May 1900*

Tanner Machine. Reel.

Turns *70* Cor. + *3* Depth *73 fms*

Shot or lead *26 lbs* to *41.*

Bottom *Very Stiff Blue Mud.*

Bottom temperature

No. of thermometer } *None* Cor. *N 40 25*
 Corrected temperature } *(North - mag)*

Air *63°* Surface *64°* Drift } *1 mile*

Trawl or dredge *Blake 5/2*

SOUNDING WIRE.		TURNS.	DREDGE ROPE.	
DOWN.	UP.		DOWN.	UP.
<i>7: 54.10</i>	<i>55.50</i>	<i>0</i>	<i>8: 05.10</i>	<i>9- 01.50</i>
<i>54.50</i>	<i>7: 55-</i>	<i>70</i>	<i>100: 13.15</i>	<i>8: 56.40</i>
		<i>100</i>		
		<i>200</i>		
		<i>300</i>		
		<i>400</i>		
		<i>500</i>		
		<i>600</i>		
		<i>700</i>		
		<i>800</i>		
		<i>900</i>		
		<i>1000</i>		
		<i>1100</i>		
		<i>1200</i>		
		<i>1300</i>		
		<i>1400</i>		
		<i>1500</i>		
		<i>1600</i>		
		<i>1700</i>		
		<i>1800</i>		
		<i>1900</i>		
		<i>2000</i>		
		<i>2100</i>		
		<i>2200</i>		
		<i>2300</i>		
		<i>2400</i>		

Senoimi, N. 10° N. true, 2.35 m

JK
HCH
1/2

2500	Chart 80.
2600	340 412' 25" N
2700	138° 31' 50" E.
2800	
2900	
3000	
3100	
3200	496 12
3300	70 9
3400	426 3
3500	70
3600	73
3700	
3800	
3900	
4000	

SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25	Contents of net.			
50				
100				
200	✓ 4 sps	Hydroids		
300	✓ 2 "	Crinoids		
400	✓ 1 "	Pycnogonids		
500	✓ 3 "	Sponges		
600	✓ 3 "	Polyspon		
700	✓ 1 "	Pennatulids		
800				
900				
1000				

REMARKS:

9 Fish lines over stbd side
Trawl net collapsed
and badly torn, lowered 100 fms
10 min.

Hutchinson

No. *3702 D* Date *7 May 1900*

Tanner Machine. Reel.

Turns *39* Cor. + *2* Depth *41 fms*

Shot or lead *26 lbs.* *+ 31*

Bottom *Vol Mud + Sand R.*

Bottom temperature

No. of thermometer } *none* Cor. *N 44° 21'*

Corrected temperature { *N 44° 21' (max)*

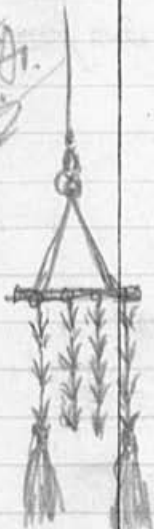
Air *63°* Surface *64°* Drift *1/8 mile*

Trawl or dredge *Drumula & 2 Swabs*

SOUNDING WIRE.		TURNS.	DREDGE ROPE.	
DOWN.	UP.		DOWN.	UP.
<i>9- 13.25</i>	<i>14.15</i>	<i>99</i>	<i>9- 07.50</i>	<i>52.30</i>
<i>13.50</i>	<i>13.55</i>	<i>100</i>	<i>75- 16.30</i>	<i>50.15</i>
		200		
		300		
		400		
		500		
		600		
		700		
		800		
		900		
		1000		
		1100		
		1200		
		1300		
		1400		
		1500		
		1600		
		1700		
		1800		
		1900		
		2000		
		2100		
		2200		
		2300		
		2400		

Sens Umi, N 13° W, (true) 1.5 miles.

OK
JCH.



Trawls badly
on bottom.

2500
2600
2700
2800
2900
3000
3100
3200
3300
3400
3500
3600
3700
3800
3900
4000

Jap. Chart No. 50.

34° 43' 25" N
138° 31' 45" E.

496
39
457

12
10
2
39

41 fms

stripped

SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25	Contents of net =			
50	✓ 10 lbs	Fish (Hippocampus.)		
100	✓ 6 "	Crustacea anomoura		
200	✓ 3 "	" brachyura		
300	✓ 2 "	Amphipods.		
400	✓ 1 "	Crinoids		
500	✓ 1 "	Pennatulids		
600	✓ 10 lbs.	Hydroids; 3 Sps Sponges.		
700	✓ 1 "	Star; 1 Sps Ophiurans		
800	✓ 8 "	Annelids		
900	✓ 1 "	Caprella		
1000				

REMARKS:

Held at 50 fms for 3 min, then
lowered to 75 fms
Lowered trawls & hauled before
taking sounding

This station located the end of line
worked over by gear lowered at 3701.

Hutchinson

501.

No. *no station* Date *7th May 1900*

Tanner Machine. Reel.

Turns *33* Cor. + *1* Depth *34 fms*

Shot or lead *36^{lb}*

Bottom *Vol Mud & Sand*

Bottom temperature

No. of thermometer } *none* Cor.

Corrected temperature

Air *63°* Surface *64°* Drift

Trawl or dredge

SOUNDING WIRE.

DOWN.

UP.

TURNS.

DREDGE ROPE.

DOWN.

UP.

9-33.50

34.20

0

34.10

34.13

33

100

200

300

400

500

600

700

800

900

1000

1100

1200

1300

1400

1500

1600

1700

1800

1900

2000

2100

2200

2300

2400

Sens 1 mi, N 6° E. (true) 1 mile.

OK
HCS
2

2500
2600
2700
2800
2900
3000
3100
3200
3300
3400
3500
3600
3700
3800
3900
4000

Jap chart #80.
34° 43' 50" N
138° 31' 10" E.

496
33
463
12
11
1
33
34

SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25				
50				
100				
200				
300				
400				
500				
600				
700				
800				
900				
1000				

(X)

REMARKS:

Note = This station is an intermediate one to determine the depth working through with the gear of preceding station; apparatus down at time sounding was taken.

Hutch.

No. 3703 Dr. Date May 1900.
 Tanner Machine. Reel.

Turns 30 Cor. + 1 Depth 31 fms.

Shot or Lead 26 lb.

Bottom vol. S. G.

Bottom temperature

No. of thermometer } none Cor. N 90° 25' true

Corrected temperature } (N 1/2 W (mag))

Air 64° Surface 64° Drift 2/3 mile,

Trawl or dredge 5 1/2 ft Blake

SOUNDING WIRE.		TURNS.	DREDGE ROPE.	
DOWN.	UP.		DOWN.	UP.
9- 53.20	53.55	0	9-59-15	42.15
53.40	53.45	45	10-03-05	40.20
		100		
		200		
		300		
		400		
		500		
		600		
		700		
		800		
		900		
		1000		
		1100		
		1200		
		1300		
		1400		
		1500		
		1600		
		1700		
		1800		
		1900		
		2000		
		2100		
		2200		
		2300		
		2400		

Seno Umi, N 16° E. (true) 0.85 miles.

OK
H.C.F.
3

	2500	
	2600	Jap Chart 180.
	2700	34° 44' N.
	2800	138° 31' E.
	2900	
	3000	
	3100	
	3200	
	3300	
	3400	
	3500	496 12
	3600	30 11
	3700	466 30
	3800	31
	3900	
	4000	

SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25	Contents of net =			
50				
100				
200	✓ Crustacea anomura			40 ps
300	✓ " brachyura			3 "
400	✓ Amphipods			1 "
500	✓ Pycnogonids			1 "
600	✓ Hydroids			1 "
700	✓ Polyzoa			2 "
800	✓ Crinoids			1 "
900	✓ Annelids			6 "
1000	✓ Gastropods			2 "
	✓ Cephalopods			1 "

REMARKS:

This station also marks the end of the line worked over by gear lowered at 3702 ft.

Hutchinson

No. no station Date 7th May 1900

Tanner Machine. Reel.

Turns 31 Cor. + 1 Depth 32 fms

Shot or lead 26 lb.

Bottom Co. gy sand - Black Sp. Gr. Md.

Bottom temperature

No. of thermometer } none Cor.

Corrected temperature

Air 64° Surface 64° Drift

Trawl or dredge

SOUNDING WIRE.

DOWN.

UP.

TURNS.

DREDGE ROPE.

DOWN.

UP.

10. 37.30

38.05

0

37.50

38.55

31

100

200

300

400

500

600

700

800

900

1000

1100

1200

1300

1400

1500

1600

1700

1800

1900

2000

2100

2200

2300

2400

Seno Umi, N 70° E. (true) 0.45 miles.

OK
H. E. 73
2

2500
2600
2700
2800
2900
3000
3100
3200
3300
3400
3500
3600
3700
3800
3900
4000

Jap chart *80.
34° 44' 40" N.
138° 30' 50" E -

496
31
465

SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25				
50				
100				
200				
300				
400				
500				
600				
700				
800				
900				
1000				

REMARKS:

Reel lowered at 5r 3703 lifted
at this posⁿ.

Hutchinson

No.

Date

7th May 1900

Tanner

Machine.

Reel.

Turns

60

Cor. +

9

Depth

69 fms

Shot or lead

26 lb

Bottom

Bottom temperature

No. of thermometer

Corrected temperature

Air

Surface

Drift

Trawl or dredge

SOUNDING WIRE.

DREDGE ROPE.

DOWN.

UP.

TURNS.

DOWN.

UP.

11-04.20

04.50

04.55

0

60

100

200

300

400

500

600

700

800

900

1000

1100

1200

1300

1400

1500

1600

1700

1800

1900

2000

2100

2200

2300

2400

	2500		
	2600		
	2700		
	2800		
	2900		
	3000		
	3100		
	3200		
	3300	496	12
	3400	60	9
	3500	<u>436</u>	<u>3</u>
	3600		60
	3700		<u>63</u>
	3800		
	3900		
	4000		

SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25				
50				
100				
200				
300				
400				
500				
600				
700				
800				
900				
1000				

REMARKS:

Dutchman

No. 5-3704 Date 7" May 1900
Tanner Machine. Reel.

Turns 90 Cor. + H Depth 94 fms

Shot or lead 26 lb. To 150 fms.

Bottom fine vol. S.

Bottom temperature

No. of thermometer

Corrected temperature

Air

63°

Surface

64°

Drift

Trawl or dredge

5 1/2 ft.

Blake

Cor.

N 30° E

(H 8 x H 10)

1 mile

am SOUNDING WIRE.

DOWN.

UP.

TURNS.

am DREDGE ROPE.

DOWN.

UP.

11- 06.50

08 =

0

11- 10.35

48.55

07.30

07.35

100

17.30

45 =

200

22.30 11- 41.05

300

400

500

600

700

800

900

1000

1100

1200

1300

1400

1500

1600

1700

1800

1900

2000

2100

2200

2300

2400

Seno Umi, S. 30° E. (true) 1 1/10 miles

OK
H.C.B.
3

2500	Jap chart #80.	
2600	340 45'	45" N
2700	138° 30'	40" E.
2800		
2900		
3000		
3100		
3200	496	12
3300	90	8
3400	406	4
3500		90
3600		94
3700		
3800		
3900		
4000		

SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25	Contents of net =			
50				
100	✓ Fishes -			1 sp.
200	✓ Crustacea anomura			1 "
300	✓ " brachyura			1 "
400	✓ Ophurians			4 "
500	✓ Phronima			1 "
600	✓ Crinoids			1 "
700	✓ Echini			3 "
800	✓ Holothurians			2 "
900	✓ Annelids			4 "
1000	✓ Nemertines			1 "
	✓ Lamellibranchs			1 "
	REMARKS:			
	✓ Gastropods			6 "
	✓ Brachiopods			1 "
	✓ Barnacles			1 "
	✓ Dentalium			2 "
	✓ Sepuncularia			1 "

Hutchinson

No. no station. Date *7th May 1900*

Tanner Machine. — Reel.

Turns *245* Cor. + *9* Depth *254 fms*

Shot or lead *26 lb.*

Bottom *fine, red. S.*

Bottom temperature

No. of thermometer

Corrected temperature

Air *63* Surface *63+* Drift

Trawl or dredge

SOUNDING WIRE.

DOWN.

UP.

TURNS.

DREDGE ROPE.

DOWN.

UP.

am *11-44-00* *11-45-10*

0

100

200

300

400

500

600

700

800

900

1000

1100

1200

1300

1400

1500

1600

1700

1800

1900

2000

2100

2200

2300

2400

Seno Kmi, 8,40 N. (true) 2.2 miles.

OK
H.O.F.
2

2500
2600
2700
2800
2900
3000
3100
3200
3300
3400
3500
3600
3700
3800
3900
4000

Jap chart *80.
340 47' N
138° 31' 30" E.

496
245
—
251

12
3
—
9
245
—
254
f

SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25				
50				
100				
200				
300				
400				
500				
600				
700				
800				
900				
1000				

REMARKS:

This station located end of
line worked over by gear
lowered at 5-3704.

No.

3705 D-

Date

7th May 1900

Machine.

Reel.

Turns

Cor. +

Depth

Shot or lead

Bottom

Did not sound-

Bottom temperature

No. of thermometer

Cor.

X 81.6

Corrected temperature

(S. H. (map)

Air

64

Surface

64

Drift

1 mile

Trawl or dredge

Intermediate

Open-

SOUNDING WIRE.

DOWN.

UP.

TURNS.

DREDGE ROPE.

DOWN.

UP.

0

1. 10.20

1. 49.30

100

17.35

1. 44.50

150

20.50

1. 41.50

200

300

400

500

600

700

800

900

1000

1100

1200

1300

1400

1500

1600

1700

1800

1900

2000

2100

2200

2300

2400

Int. net from
106 fms. to
surface -

Seno Ami. S. 18° N. (true) 5 3/10 miles.

	2500	
	2600	Jap chart 80.
	2700	34° 49' 15" N
	2800	138° 34' 15" E.
	2900	
	3000	
	3100	
	3200	
	3300	
	3400	
	3500	
	3600	
	3700	
	3800	
	3900	
	4000	

SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25	Surface net broken ; bad day			
50	few Copepods -			
100	Intermediate net =			
200				
300	few Copepods			
400	" Sagitta			
500	1 sp. Macrura crustacean			
600				
700				
800				
900				
1000				

REMARKS:

Surface net over at 1.13.30
 " " " " 1.41.15

W. L.

No. 3706 - Date 8th May 1900
 Machine. #3 Reel. Built up
 Turns 306 Cor. + 31 Depth 337 fms.
 Shot or lead 35 pound.
 Bottom green mud
 Bottom temperature
 No. of thermometer } none Cor.
 Corrected temperature } (North true)
 Air 63 Surface 64 Drift { 1 mile.
 Trawl or dredge 8' Tanner. no net weight

SOUNDING WIRE.		TURNS.	DREDGE ROPE.	
DOWN.	UP.		DOWN.	UP.
8 57 15	9.06.15	0	9.10.20	9.58.30
58.15	05.15	100	14.25	55.00
59.25	04.00	200	18.50	51.15
9.00.40	02.50	300	23.00	47.20
9.00.50	9.02.40	306	27.05	43.50
		400		
		500	9.31.00	9.38.30
		600		
		700		
		800		
		900		
		1000		
		1100		
		1200		
		1300		
		1400		
		1500		
		1600		
		1700		
		1800		
		1900		
		2000		
		2100		
		2200		
		2300		
		2400		

South Pt, Ent: to Port Heda, N 86° E (true) 2 m.

OK
HOT

	2500	Jap. chart #80. ✓
	2600	34° 58' 20" N
	2700	138° 43' 40" E -
	2800	
	2900	
	3000	5035 260
	3100	306 229
	3200	4729 31
	3300	306
	3400	337
	3500	
	3600	
	3700	
	3800	
	3900	
	4000	

SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25	Lost frame entirely, but saved net. net today			
50				
100				
200				
300	This trawl frame is one which was recently badly twisted.			
400				
500				
600	Contents of net -			
700	✓ 1 sp	fish		
800	✓ 2 "	Crustacea	macrura	
900	✓ 2 "	"	anomura	
1000	✓ 1 "	Alcyonaria -	(Cratoisus.)	
	✓ 1 "	(Antedon)	Crinoid.	
	✓ 2 "	Echini		
	✓ 1 "	Hydroids		
	✓ 1 "	Sponges		
	✓ 1 "	Holothurians		
	✓ 1 "	Samellebranchia		

REMARKS:

No. 3707 Date 8 May 1900

Tanner Machine. Reel.

Turns 61 Cor. + 2 Depth 63 fms

Shot or lead 26 lbs. passing into

Bottom vol. S. A. G. 75-70 fms

Bottom temperature from chart

No. of thermometer } None Cor.

Corrected temperature 56.5° N (true)

Air 66 Surface 65 Drift 1 1/2 m

Trawl or dredge 8' Tanner (no wing weights)

SOUNDING WIRE.

DOWN.

UP.

TURNS.

DREDGE ROPE.

DOWN.

UP.

10.44.00

44.30

60

100

120

200

150

400

500

600

700

800

900

1000

1100

1200

1300

1400

1500

1600

1700

1800

1900

2000

2100

2200

2300

2400

10.46.50 11.28.35

10.52.15 11.25.00

10.57.50

10.58.35

11.03.10 11.22.40

11 sps Gasteropods

✓ 1 " Lamellibranch

✓ 1 " Barnacle

✓ 1 " Brachiopod

✓ 1 " Nudi branch

✓ 1 " Cephalopod

✓ 1 " Isopoda

✓ 1 " Amphipoda

2 or 3 " Dentalia

✓ 2 " Corals

Ose Zaki, S. 53° N. (true) 2 1/4 m ✓

O/L H/OZ. 2	Yeno Ura -	2500	Jap. chart #80.	
		2600	35° 03' N	
		2700	138° 49' 30" E.	
		2800		
		2900		
		3000	496	12
		3100	61	10
		3200	435	2
		3300		61
		3400		63
		3500		
		3600		
		3700		
		3800		
		3900		
		4000		

SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25	Excellent catch. some very			
50	rare forms in fine shape -			
100				
200	Contents of net =			
300	✓ 14 sps	Fishes.	.	
400	✓ 5 "	Crustacea.	macrura	
500	✓ 10 "	"	anomura	
600	✓ 1 "	"	brachyura	
700	✓ 2 "	Echini	.	
800	✓ 3 "	Ophiurans.		
900	✓ 3 "	Crinoids.	(some stalked.)	
1000	✓ 4 "	Starfish	.	

✓ 4 " Alcyonaria.

REMARKS:

✓ 2 " Hydroids .

✓ 3 " Polyzoa

✓ 2 " Juncatus .

✓ 2 " Actinians .

✓ 12 " Annelids .

✓ 4 " Sponges

✓ 4 " Pennatula.

Hutch.

No. *3708* Date *8 May 1900*

Machine. Reel.

Turns Cor. + Depth *60 to 70 fms*
Shot or lead from chart

Bottom } *did not sound.*

Bottom temperature }
No. of thermometer Cor. *866° W (true)*
Corrected temperature

Air *66* Surface *65* Drift *1 1/4 m.*

Trawl or dredge *8' Tanner (end weights)*

SOUNDING WIRE.		TURNS.	DREDGE ROPE.	
DOWN.	UP.		DOWN.	UP.
		0	<i>59 =</i>	<i>58.30</i>
		100	<i>12:03.50</i>	<i>52.45</i>
		150	<i>05.50</i>	<i>12: 49.55</i>
		200		
		300		
		400		
		500		
		600		
		700		
		800		
		900		
		1000		
		1100		
		1200		
		1300		
		1400		
		1500		
<i>12 sp</i>	<i>Brachiopods</i>	1600		
<i>15 "</i>	<i>Gastropods</i>	1700		
<i>14 "</i>	<i>Lamellibranchs</i>	1800		
		1900		
		2000		
		2100		
		2200		
		2300		
		2400		

Ose Zaki, 8.55° N. (true) 2 3/4 m.

Yens Ura.

2500
2600
2700
2800
2900
3000
3100
3200
3300
3400
3500
3600
3700
3800
3900
4000

Jap. Chart #80.
35° 03' 10" N
138° 50' 8"

SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25	Much mud from which			
50	specimens had to be washed -			
100				
200	7 or 8	spo Fishes		
300	✓ 4	spo Starfish		
400	✓ 4	" Ophiurans		
500	✓ 5	" Echini		
600	✓ 5	" Actinians		
700	✓ 2	" Pennatulids		
800	✓ 2	" Corals		
900	✓ 6	" Crustacea anomura		
1000	✓ 1	" macrura		
REMARKS:				
✓ 1	"	Cephalopod		
✓ 4	"	Amphipods		
✓ 1	"	Isopods		
✓ 3	"	Pentaria		
✓ 2	"	Junicates		
✓ 2	"	Pycnogonids		
✓ 15	"	Annelida		
✓ 1	"	Chiton		

Staley.

No.

3709

Date

10 May 1910

Machine.

Reel.

Turns 166 Cor. +

Depth

173 fms

Shot or lead

36 #

Bottom st. H. vol. M.

Bottom temperature

No. of thermometer

Cor.

Corrected temperature

Air

Surface

Drift

S. 41° E. 1 m

Trawl or dredge

5 ft beam trawl

S. 80° E. 1/2 m

SOUNDING WIRE.

DREDGE ROPE.

DOWN.

UP.

TURNS.

DOWN.

UP.

8.20.20 8.21.00
21.25 22.45
1.21.15 1.22.00

0
100
166
200
300
400
500
600
700
800
900
1000
1100
1200
1300
1400
1500
1600
1700
1800
1900
2000
2100
2200
2300
2400

8.26.15 9.41.00
33.30 36.05
39.20 39.20
42.00 21.45
46.30 21.10
50.40 9.12.25

NW Pt. Spit head, Shimizu Har, N 77° W. (true) 1 1/2 m

OK Hoto 2		2500	Jap. chart #801 ✓	
		2600	35° 00' 40" N	
		2700	138° 32' 50" E.	
		2800		
		2900		
	Water deepened to about <u>260</u> fms while dredging -	3000	496	12
		3100	166	5
		3200	330	7
		3300		16/6
		3400		173
		3500		
		3600		
		3700		
		3800		
		3900		
		4000		

SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25	Net badly torn on rough bottom -			
50				
100	Contents of net:			
200				
300				
400	✓ 10 sps	Fish		
500	✓ 1 "	Holothuria		
600	✓ 6 "	Annelids		
700	✓ 1 "	Echini.		
800	✓ 1 "	Ophiurans		
900	✓ 4 "	Gastropods		
1000	✓ 5 "	Lamellibranchs		

REMARKS:

No.

Date

Machine.

Reel.

Turns

Cor. +

Depth

Shot or lead

Bottom

Bottom temperature

No. of thermometer

Corrected temperature

Air

Surface

Drift

Trawl or dredge

SOUNDING WIRE.

DOWN.

UP.

TURNS.

DREDGE ROPE.

DOWN.

UP.

10.22.10	10.39.45	0	10.45.50	1. 03.25
23.05	38.40	100	50.50	59.05
24.10	37.35	200	50.00	55.30
25.20	36.35	300	58.30	53.00
26.30	35.30	400	11.02.30	48.30
27.40	34.30	500	06.00	45.00
28.50	33.25	600	11.00	41.20
30.10	32.20	700	15.00	37.30
10.30.30	10.32.00	726	20.10	33.20
		800	24.00	29.10
		900	28.00	12.24.10
		1000		
		1100		
		1200		
		1300		
		1400		
		1500		
		1600		
		1700		
		1800		
		1900		
		2000		
		2100		
		2200		
		2300		
		2400		

Entrance Port Heda, N 88° E, (true) 6.5 m.

OK
H.C.D.
2

2500
2600
2700
2800
2900
3000
3100
3200
3300
3400
3500
3600
3700
3800
3900
4000

Jap chart # 80X
34° 58' 10" N.
138° 38' 00" E.

5035 260
726 186
4309 74
726
800

SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25				
50				
100	<u>Contents of net:</u>			
200				
300	✓ 2 sp	Fishes		
400	✓ 3 "	Crustacea macrura		
500	✓ 1 "	Amphipods		
600	✓ 1 "	Copepods		
700				
800				
900				
1000				

REMARKS:

No. 3711 Date 10 May 1900

Machine. #3 Reel. Built up

Turns 615 Cor. + 62 Depth 677 fms

Shot or lead 35 pounds

Bottom Vol. S. M.

Bottom temperature

No. of thermometer

Cor.

Corrected temperature

Air 65 Surface 64 Drift

Trawl or dredge 5 1/2' Blake

SOUNDING WIRE.

DOWN.

UP.

TURNS.

DREDGE ROPE.

DOWN.

UP.

06.30	20.00	0	1.30.50	3.52.20
07.15	19.00	100	36.40	48.40
08.15	18.05	200	41.10	45.15
09.15	17.05	300	45.25	41.50
10.15	16.05	400	49.00	38.10
11.20	15.00	500	52.40	34.10
12.30	14.00	600	56.00	30.20
1.12.45	1.13.50	645	2.03.00	26.50
		700	12.20	3.20.00
		800		
		900		
		1000		
		1100		
		1200		
		1300		
		1400		
		1500		
		1600		
		1700		
		1800		
		1900		
		2000		
		2100		
		2200		
		2300		
		2400		

This sounding station marks the end of track of B-3710.

Ent. Port Hada, S. 63° E. (true) 6.2 m. ✓

SPT. ↑

OK
H.C.S.

Depth decreased to
abt 500 fms. acc'd g
to chart.

2500
2600
2700
2800
2900
3000
3100
3200
3300
3400
3500
3600
3700
3800
3900
4000

Jap chart #80.
35° 01' 15" N.
138° 39' 10" E.

5035 260
615 198
4420 62
615
677

SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25				
50				
100				
200				
300				
400				
500				
600				
700				
800				
900				
1000				

Contents of net:

1 sp Fish.
2 sps Holothuria

REMARKS:

Ose Zaki, S. 72° E. (true) 6 1/2 m.

		2500	Surface Net	
		2600	PM	PM.
fm.		2700	4- 09.30	4- 36 =
(Jap. X 80.)		2800		
		2900	Poor.	
35° 03'	30° N	3000		
138° 39'	50° E.	3100		
		3200		
		3300		
		3400		
		3500		
		3600		
		3700		
		3800		
		3900		
		4000		

SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25	Contents of Surface net:			
50	✓	1 sps	Copepods	
100	✓	1 " 1/2	Fish.	
200	Intermediate net:			
300	✓	2 sps	Crustacea macrura	
400	✓	2 "	Schizopoda	
500	✓	2 "	Copepoda	
600	✓	1 "	Pteropoda	
700	✓	1 "	Sagitta	
800	✓	1 "	Medusae	
900	✓	1 "	Phoronina	
1000	✓	1 "	Astratoda	

✓ 2 sps Fishes.

REMARKS:

Stann

① No. 3713 *52* Date 11 May 1900:-

Tanner Machine. — Reel.

Turns *43* Cor. + *2* Depth *45 fms*

Shot or lead *36 #*

Bottom *Vol. S and Sh.*

Bottom temperature

No. of thermometer *None* Cor.

Corrected temperature

Air *59* Surface *65* Drift *5 1/6 m*

Trawl or dredge *5 ft Tanner, no weights*

SOUNDING WIRE.

DREDGE ROPE.

DOWN.

UP.

TURNS.

DOWN.

UP.

<i>5.44.00</i>	<i>45.00</i>	<i>0</i>	<i>5.48.00</i>	<i>6.18.00</i>
<i>44.25</i>	<i>5.44.30</i>	<i>43</i>	<i>54.15</i>	<i>15.10</i>
		<i>100</i>	<i>54.30</i>	<i>14.50</i>
		<i>200</i>		
		300		
		400		
		500		
		600		
		700		
		800		
		900		
		1000		
		1100		
		1200		
		1300		
		1400		
		1500		
		1600		
		1700		
		1800		
		1900		
		2000		
		2100		
		2200		
		2300		
		2400		

Ope Zaki, S. 81° W. (true) 4.2 m

Yeno Ura - OK JCS 2	2500	Jap. chart #80.	
	2600	35° 02' 15" N	
	2700	138° 52' 20" E.	
	2800		
	2900		
	3000	49 6	12
	3100	43	10
	3200	40 3	2
	3300		43
	3400		40 / 11
deepened to 48 fms.	3500		
	3600		
	3700		
	3800		
	3900		
	4000		

SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25	Net slightly torn.			
50				
100	✓ 5 sp.	Fishes		
200	✓ 4 "	Sponges		
300	✓ 1 "	Stomatopod		
400	✓ 1 "	Cephalopod		
500	✓ 1 "	Polyzoa		
600	✓ 3 "	Annelids		
700	✓ 2 "	Crustacea	macrura	
800	✓ 5 "	"	anomura	
900	✓ 2 "	"	brachyura	
1000	✓ 3 "	Ophiurans		

✓ 3 " Echini

REMARKS:

✓ 2 " Crinoids

✓ 2 " Actinians

✓ 2 " Dentalia

✓ 1 " Brachiopod

✓ 2 " Pennatulids

✓ 3 " Alcyonaria

✓ 3 " Gastropods

✓ 3 " Lamellibranchs

No. 2714

Date 11th May 1900

Machine.

Reel.

Turns

Cor. +

Depth

48 fms.

Shot or lead

from chart.

Bottom

Bottom temperature

No. of thermometer

Cor.

Corrected temperature

Air

Surface

Drift

Trawl or dredge

(N 78° W.

1 1/4 m

8 ft. Tanner, not weighted

SOUNDING WIRE.

DREDGE ROPE.

DOWN.

UP.

TURNS.

DOWN.

UP.

0

100

200

300

400

500

600

700

800

900

1000

1100

1200

1300

1400

1500

1600

1700

1800

1900

2000

2100

2200

2300

2400

6.26.00 7.04.15
31.35 7.00.35
6-36.30 6.59.00

Ope Zaki, S. 82° W, (true) 3.3 m

Meno Ura -

deepened to
abt 60 fms -

2500
2600
2700
2800
2900
3000
3100
3200
3300
3400
3500
3600
3700
3800
3900
4000

Jap. Chart #80.
35° 02' 10" N
138° 51' 20" E.

SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25	Small hole found in net			
50				
100				
200	✓ 6 sp	Fishes		
300	✓ 2 sp	Alcyonaria		
400	✓ 1 "	Tunicati		
500	✓ 1 "	Brachiopoda		
600	✓ 4 "	Crustacea anomura		
700	✓ 2 "	" macrura		
800	✓ 3 "	Ophiurans		
900	✓ 1 "	Cephalopods		
1000	✓ 3 "	Annelids		
	✓ 1 "	Actinians		

REMARKS:

- ✓ 1 " Hydroids
- ✓ 1 " Echinodae
- ✓ 3 " Sponges
- ✓ 3 " Crinoids
- ✓ 2 " Stars
- ✓ 2 " Echini

No.

3715

Date

11 May 1900

Machine.

Reel.

Turns

Cor. +

Depth

68 fms.
from chart.

Shot or lead

Bottom

Bottom temperature

No. of thermometer

Corrected temperature

Air

59

Surface

65

Drift

{ S. 74° W.
7 1/8 m

Trawl or dredge

8 Tanner no weights

SOUNDING WIRE.

DOWN.

UP.

TURNS.

DREDGE ROPE.

DOWN.

UP.

0

100

150

200

300

400

500

600

700

800

900

1000

1100

1200

1300

1400

1500

1600

1700

1800

1900

2000

2100

2200

2300

2400

7.31.30

36.05

7.38.10

8.06.35

03.10

8.01.15

Ose Zaker, 8.560 m. (1000) 16/10 m.

Yeno Ura.

to 65.

2500
2600
2700
2800
2900
3000
3100
3200
3300
3400
3500
3600
3700
3800
3900
4000

Jap. Chart #80.
35° 02' 25" N
138° 48' 55" E.

SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25				
50				
100				
200				
300				
400	✓ 6 sp.	Fishes.		
500	✓ 6 "	Crustaceae anomura		
600	✓ 2 "	" macrura		
700	✓ 4 "	Ophiurans		
800	✓ 2 "	Starfish		
900	✓ 3 "	Crinoids		
1000	✓ 3 "	Annelids		

✓ 2 " Amphipods

REMARKS:

✓ 4 " Alcyonaria

✓ 1 " Isopods

✓ 3 " Sponges

✓ 3 " Gastropods

✓ 2 " Lamellibranchs

No. 3716 Date 11 May 1900

Machine. Reel.

Turns Cor. +

Shot or lead

Bottom

Bottom temperature

No. of thermometer

Corrected temperature

Air 74

Surface 66

Drift

Trawl or dredge

8 Tanner No weights

Depth 65 fms to
from chart.
Did not sound.

Cor.

{ N 87° W.

{ 1 1/4 m

SOUNDING WIRE.

DOWN.

UP.

TURNS.

DREDGE ROPE.

DOWN.

UP.

0

8 14.40 8 55.35

100

19.30 51.00

200

21.40

300

8 31.50 8 46.15

400

500

600

700

800

900

1000

1100

1200

1300

1400

1500

1600

1700

1800

1900

2000

2100

2200

2300

2400

3 sps Polynoa
✓ 3 u Pennatula
✓ 2 u Echini
✓ 3 u Crinoids
✓ 3 u Starfish
✓ 6 u Alcyonaria
✓ 2 u Corals

Ope Zaki, S. 36° 7' (true) 8/10 m.

Yens Ura-

125 fms -
(Jap. #80.)

2500
2600
2700
2800
2900
3000
3100
3200
3300
3400
3500
3600
3700
3800
3900
4000

Jap chart #80.
35° 02' 15" N
138° 47' 50" E

SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25				
50				
100				
200				
300	✓ 6 sp	Fishes		
400	✓ 4 "	Gastropods		
500	✓ 2 "	Lamellibranchs		
600	✓ 1 "	Crustacea anomura		
700	✓ 2 "	"		macrura
800	✓ 2 "	"		brachyura
900	✓ 1 "	Pycnogonid		
1000	✓ 3 "	Ophiurans		

✓ 2 " Nudibranch mollusca

REMARKS:

✓ 3 " Annelids

✓ 4 " Sponges

✓ 1 " Sipunculids

✓ 1 " Cephalopods

✓ 4 " Actinians

✓ 1 " Chitons

✓ 1 " Stomatopod

No. 3717 Dr. Date 11 May 1900

Machine. Reel.

Turns Cor. +

Depth 75-100-63
from chart.

Shot or lead

Bottom

Bottom temperature

did not sound.

No. of thermometer

Cor.

Corrected temperature

Air 75 Surface 66

Drift

Trawl or dredge

8 Tanner No. 10

SOUNDING WIRE.

DOWN.

UP.

TURNS.

DREDGE ROPE.

DOWN.

UP.

0

100

200

300

400

500

600

700

800

900

1000

1100

1200

1300

1400

1500

1600

1700

1800

1900

2000

2100

2200

2300

2400

9-27-40 10 31 55
33.00 27 20
9-37-30 10 24 30

Oae Zaki, S. 34° E. (true) 0.8 miles

Yeno Ura.

from
(Jap. 80.)

2500
2600
2700
2800
2900
3000
3100
3200
3300
3400
3500
3600
3700
3800
3900
4000

Jap. Chart 80.
35° 02' 15" N
138° 46' 40" E

SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25				
50				
100				
200				
300	✓ 10	spz	Fishes.	
400	✓ 2	"	Brachiopod	
500	✓ 1	"	Tricelata	
600	✓ 5	"	Gastropoda	
700	✓ 2	"	Nudibranch mollusks	
800	✓ 4	"	Lamellibranchs	
900	✓ 2	"	Crustacea macrura	
1000	✓ 1	"	"	Brachyura
	✓ 6	"	"	Anomura

REMARKS:

- ✓ 4 " Annelids
- ✓ 2 " Echini
- ✓ 3 " Holothurians
- ✓ 3 " Crinoids
- ✓ 3 " Alcyonaria
- ✓ 3 " Pennatulids
- ✓ 2 " Corals
- ✓ 3 " Sponges.

No. 3718 15- Date 11 May 1900

Machine. Reel.

Turns Cor. +

Depth 65 fms.

Shot or lead

Bottom

Bottom temperature

No. of thermometer

Cor.

Corrected temperature

Air 68 Surface 65

Drift 5/6 mi

Trawl or dredge

5 1/2

Blake

SOUNDING WIRE.		TURNS.	DREDGE ROPE.	
DOWN.	UP.		DOWN.	UP.
		0	10.53.00	11.41.25
		100	10.58.20	11.39.55
		200	11.02.10	11.35.30
		300		
		400		
		500		
		600		
		700		
		800		
		900		
		1000		
		1100		
		1200		
		1300		
		1400		
		1500		
		1600		
		1700		
		1800		
		1900		
		2000		
		2100		
		2200		
		2300		
		2400		

3 sps Alcyonaria
 13 4 Pennatulid
 2 " Corals

Ode Zaki, S. 370 N. (true) 1.2 m

from chart
(Jap. #80.)

2500	35° 02'	35"
2600	138° 45'	10"
2700		
2800		
2900		
3000		
3100		
3200		
3300		
3400		
3500		
3600		
3700		
3800		
3900		
4000		

SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25				
50				
100				
200				
300				
400	✓ 3	Fishes.		
500	✓ 1 "	Juncata		
600	✓ 1 "	Brachiopods		
700	✓ 2 "	Gastropods		
800	✓ 3 "	Ramellibranchs		
900	✓ 1 "	Nudibranchs		
1000	✓ 1 "	Crustacea macrura		
	✓ 2 "	anomura		

REMARKS:

- ✓ 1 " Annelida
- ✓ 1 " Nemertians
- ✓ 2 " Starfish
- ✓ 4 " Ophiurans
- ✓ 2 " Echini
- ✓ 3 " Crinoids
- ✓ 1 " Actinia

Hutchinson

No. *37195* Date *11 May 1900*

Machine. Reel.

Turns Cor. +

Depth *90 to 70 fms.*
from chart

Shot or lead

Bottom

Bottom temperature

No. of thermometer

Corrected temperature

Air

71

Surface

66

Cor.

S 40° E.

Drift

1/2 m.

Trawl or dredge *Tanner, 1 End. Night - No Wing Nets*

SOUNDING WIRE.		TURNS.	DREDGE ROPE.	
DOWN.	UP.		DOWN.	UP.
		0	<i>23.20</i>	<i>53.10</i>
		100	<i>28.10</i>	<i>48.40</i>
		<i>175</i>	<i>32.10</i>	<i>46.10</i>
		200		
		300		
		400		
		500		
		600		
		700		
		800		
		900		
		1000		
		1100		
		1200		
		1300		
		1400		
		1500		
		1600		
		1700		
		1800		
		1900		
		2000		
		2100		
		2200		
		2300		
		2400		

Ose Zaki, S. 13° N. 1.5 m.

Yero Ura

2500
2600
2700
2800
2900
3000
3100
3200
3300
3400
3500
3600
3700
3800
3900
4000

Jap. chart #80.
35° 03' N
138° 47' 40" E.

SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25	Contents of this haul in all essential features similar to St. # 3720, except fishes, of which there were none -			
50				
100				
200				
300				
400				
500				
600				
700				
800				
900				
1000				

REMARKS:

Hutchinson

⑧ No. 3720 *Dr* Date 11 May 1900

Machine. Reel.

Turns Cor. +

Shot or lead

Bottom

Bottom temperature

No. of thermometer

Corrected temperature

Air

69

Surface

66

Drift

535 E.

1/2 m.

Trawl or dredge 8 Turner - no runner weights

SOUNDING WIRE.		TURNS.	DREDGE ROPE.	
DOWN.	UP.		DOWN.	UP.
		0	2- 05.30	45.40
		100	11.40	38.50
		175		
		200	14.30	36.20
		300		
		400		
		500		
		600		
		700		
		800		
		900		
		1000		
		1100		
		1200		
		1300		
		1400		
		1500		
		1600		
		1700		
		1800		
		1900		
		2000		
		2100		
		2200		
		2300		
		2400		

Ose Zaki, S. 360M. 0.8 m -

Yeno Ura -

2500

2600

2700

2800

2900

3000

3100

3200

3300

3400

3500

3600

3700

3800

3900

4000

Jap. chart #80.
35° 02' 15" N
138° 47' 50" E.

Content of net.

SERIAL TEMPERATURES

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25	6.0	Fishes		
50	10.0	Brachiopods		
100	14.0	Gastropods		
200	1.0	Mollusks		
300	2.0	Crustacea macrura		
400	2.0	Annelids		
500	1.0	Myzostomidae		
600	1.0	Starfish		
700	2.0	Ophiurans		
800	2.0	Crinoids		
900	3.0	Actinians		
1000	3.0	Alcyonarians		
	2.0	Penatulids		
	2.0	Corals		
	3.0	Sponges		

REMARKS:

Stailly: *Exp. 10-11*
 No. *3921* Date *12th May 1900.*
 Sigsbee Machine. #3 Reel. Built up.
 Turns *188* Cor. + *19* Depth *207 fms.*
 Shot or lead *35#* to *250 fms.*
 Bottom *Mud gy.*
 Bottom temperature
 No. of thermometer *Stone* Cor.
 Corrected temperature
 Air *68* Surface *64+* Drift *5 1/2 m*
 Trawl or dredge *8 ft. Tanner - 10 weight*

SOUNDING WIRE.

DOWN.

UP.

TURNS.

DREDGE ROPE.

DOWN.

UP.

<i>7.15.25</i>	<i>7.20.30</i>	0	<i>7.24.10</i>	<i>9.04.05</i>
<i>16.15</i>	<i>19.20</i>	100	<i>28.10</i>	<i>55.55</i>
<i>7.17.15</i>	<i>7.18.20</i>	<i>188</i>	<i>32.55</i>	<i>47.20</i>
		300	<i>37.00</i>	<i>38.15</i>
		<i>350</i>	<i>39.40</i>	<i>18.26.00</i>
		400	<i>41.10</i>	<i>18.26.35</i>
		<i>450</i>	<i>43.00</i>	<i>18.18.15</i>
		600		
		700		
		800		
		900		
		1000		
		1100		
		1200		
		1300		
		1400		
		1500		
		1600		
		1700		
		1800		
		1900		
		2000		
		2100		
		2200		
		2300		
		2400		

Off Oa Dawa, N. 49° W. 2.8 m.

Off Oa Dawa, east coast Totomi. OK H.C.S.	2500	
	2600	west shore Saruga Gulf.
	2700	
	2800	Jap chart #80.
	2900	
Jap. chart #80.	3000	5035 260
34° 44' 40" N	3100	188 241
138° 20' 35" E.	3200	4847 19
	3300	188
	3400	207
	3500	
	3600	
	3700	
	3800	
	3900	
	4000	

SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25	Net badly torn from weight of mud; beam bent in a curve, arched about 4" from straight line. Poor haul.			
50				
100				
200				
300	6 sp	Fishes		
400	1 "	Gastropods		
500	1 "	Lamellibranchs		
600	2 "	Crustacea macrura		
700	2 "	Dentalium		
800	4 "	Annelids		
900	1 "	Nemertines		
1000	1 "	Hocothuria		

REMARKS:

5071 *Hutchinson, Cat Log 74.6*

No. ~~44~~ *45* Date *13 May 1900*

Tanner Machine. — Reel. —

Turns *44* Cor. + *2* Depth *46 fms*

Shot or Lead *26 lb.*

Bottom *Vol. Sand.*

Bottom temperature

No. of thermometer } *none* Cor.

Corrected temperature

Air *65* Surface *64* Drift

Trawl or dredge

SOUNDING WIRE.

DOWN.

UP.

TURNS.

DREDGE ROPE.

DOWN.

UP.

arr 11:05 = 06.30

05.50 06 =

0

44

100

200

300

400

500

600

700

800

900

1000

1100

1200

1300

1400

1500

1600

1700

1800

1900

2000

2100

2200

2300

2400

OK
H.C.B.
in

2500

2600

2700

2800

2900

3000

3100

3200

3300

3400

3500

3600

3700

3800

3900

4000

496
44
452

12
10
2
44
46

SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25				
50				
100				
200				
300				
400				
500				
600				
700				
800				
900				
1000				

REMARKS:

Skinner 3922

No.

Date

15th May 1900.

Machine.

Reel.

Turns

Hand Code

Depth

9 fms

Shot or lead

12#

Bottom

Soft. No specimen

Bottom temperature

No. of thermometer

Wm. Cor. S 58° W (true)

Corrected temperature

Air

61

Surface

63

Drift

2/3 m

Trawl or dredge

Wanner Height

SOUNDING WIRE.

DOWN.

UP.

TURNS.

DREDGE ROPE.

DOWN.

UP.

7.21.00 - 7.31.20
7.22.20 - 7.30.20

0

20

400

200

300

400

500

600

700

800

900

1000

1100

1200

1300

1400

1500

1600

1700

1800

1900

2000

2100

2200

2300

2400

Yokkaichi Light, S 89 m. 3.7 m.

Sea.

2500

Jap. chart #126.

2600

34° 57' 55" N.

2700

136° 42' 30" E.

2800

2900

3000

3100

3200

3300

3400

3500

3600

3700

3800

3900

4000

Bottom, indicated by contents of net, mud, sand, shells, and shells, for this station, as well as 3723 & 3724.

SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25	Contents of net =			
50	✓ 5 sps	Fishes.		
100	✓ 1 "	Luniata		
200	✓ 5 "	Gastropods		
300	✓ 2 "	Lamellibranchs		
400	✓ 1 "	Stomatopods		
500	✓ 1 "	Isopods		
600	✓ 3 "	Crustacea macrura		
700	✓ 2 "	brachyura		
800	✓ 2 "	Echini		
900	✓ 1 "	Annelids		
1000	✓ 1 "	Dentalium.		

REMARKS:

24 W.I.

No.

3723

Date

15 May 1900

Machine.

Reel.

Turns

Hand Cor + Lead

Depth

13 fms 5 ft

Shot or lead

12 pounds

Bottom

Soft

No specimen

Bottom temperature

No. of thermometer

None

Cor. 564°E (true)

Corrected temperature

56°E 46 fms

Air

61

Surface

62

Drift

1 mile

Trawl or dredge

8 Tanner Weighted

SOUNDING WIRE.

DOWN.

UP.

TURNS.

DREDGE ROPE.

DOWN.

UP.

✓

0	8.13.30	8.36.30
25	8.15.10	
30	8.20.35	8.34.30
300		
400		
500		
600		
700		
800		
900		
1000		
1100		
1200		
1300		
1400		
1500		
1600		
1700		
1800		
1900		
2000		
2100		
2200		
2300		
2400		

Yokkaichi Light, N(23° 75') (true) 6.7 m

Ice Sea.

~~1000~~
~~2000~~
~~3000~~
~~4000~~

13 to 16 fms.

2500
2600
2700
2800
2900
3000
3100
3200
3300
3400
3500
3600
3700
3800
3900
4000

Jap. Chart #126.
34° 51' 35" N.
136° 41' 10" E.

SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25	Contents of net.			
50				
100	✓ 4 sps	Fishes		
200	✓ 1 "	Tunicates		
300	✓ 4 "	Pteropods		
400	✓ 3 "	Lamellibranchs		
500	✓ 1 "	Dentalium		
600	✓ 2 "	Crustacea macrura		
700	✓ 1 "	" brachyura		
800	✓ 1 "	Stomatopoda		
900	✓ 5 "	Annelids		
1000	✓ 2 "	Echini		

REMARKS:

No.

3724

Date

15 May 1900

Machine.

Reel.

Turns

Hand Cor. 4 Lead

Depth

19 fms. 20 fms.

Shot or lead

12 pounds

Bottom

Soft.

no specimen.

Bottom temperature

No. of thermometer

None

Cor.

52° 8 (true)

Corrected temperature

(54° 11 (true))

Air

63

Surface

64

Drift

1.2 m

Trawl or dredge

8' Tanner.

Not weighted.

SOUNDING WIRE.

DOWN.

UP.

TURNS.

DREDGE ROPE.

DOWN.

UP.

200

300

400

500

600

700

800

900

1000

1100

1200

1300

1400

1500

1600

1700

1800

1900

2000

2100

2200

2300

2400

9. 20. 30

9. 37. 10

9. 22. 30

9. 35. 35

Koma Saki, N. 86° 21'. W. 5.7 m
S. 86° E.

De Sea.

~~19 to 20 fms~~

2500
2600
2700
2800
2900
3000
3100
3200
3300
3400
3500
3600
3700
3800
3900
4000

Jap chart #126.
34° 46' 20" N
136° 43' 10" E.

SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25	<u>Contents of net</u>			
50				
100	✓ 2 sp	Fishes		
200	✓ 1 "	Tunicata		
300	✓ 3 "	Gastropods		
400	✓ 2 "	Lamellibranchs		
500	✓ 2 "	Crustacea	macrura	
600	✓ 1 "	"	brachyura	
700	✓ 1 "	Stomatopoda		
800	✓ 4 "	Annelids		
900	✓ 1 "	Nemertines		
1000	✓ 2 "	Echini		
	✓ 2 "	Ophiurans		

REMARKS:

No. 3725 D - Date 15 May 1900

Machine. Reel.

Turns Hand Cor. 4 Lead Depth 13 fms.

Shot or lead 12 pounds

Bottom Gravel S. Gr.

Bottom temperature

No. of thermometer

Cor. 546° W (true)

Corrected temperature

Air 62 Surface 64 Drift 5/6 m

Trawl or dredge 8 Tanner 1st weighted

SOUNDING WIRE.

DOWN.

UP.

TURNS.

DREDGE ROPE.

DOWN.

UP.

0

30

200

300

400

500

600

700

800

900

1000

1100

1200

1300

1400

1500

1600

1700

1800

1900

2000

2100

2200

2300

2400

10.35.20 10.53.20

10.37.20 10.52.20

Troma Saki, N 18 E. (true) 8.8 m

See Sec.

2500

Jap Chart #126.

2600

34° 37' 35" N.

2700

136° 46' 10" E.

2800

2900

3000

3100

3200

3300

3400

3500

3600

3700

3800

3900

4000

SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25	Contents of net			-
50	✓ 2 sp	Fishes.		
100	✓ 1 "	Junicata		
200	✓ 6 "	Gasteropods		
300	✓ 6 "	Lamellebrachs.		
400	✓ 3 "	Crustacea		
500	✓ 2 "	macrura		
600	✓ 5 "	brachyura		
700	✓ 1 "	anomura		
800	✓ 4 "	Dopoda		
900	✓ 1 "	Annelids		
1000	✓ 2 "	Echiurus		
	✓ 2 "	Sphirans		
	✓ 2 "	REMARKS		
	✓ 2 "	Crinoids		
	✓ 1 "	Echini		
	✓ 1 "	Holothurians		
	✓ 3 "	Clayonaria		
	✓ 3 "	Sponges		

Sketchinson Pat Log 35.1

No. *3726 D* Date *15 May 1900*

Tanner Machine. Reel.

Turns *25* Cor. + *1* Depth *26 fms*

Shot or lead *26#*

Bottom *gy. Sd. Sand.*

Bottom temperature

No. of thermometer

Corrected temperature

Air

64

Surface

63

Drift

South (true)

5 1/6 mile.

Trawl or dredge *8 ft Tanner, No Weights*

SOUNDING WIRE.

DOWN.

UP.

TURNS.

DREDGE ROPE.

DOWN.

UP.

PM

1-

36.40

37=

0

1-

38.30

02.30

36.45

1-

36.50

40

41.10

2-00.40

200

300

400

500

600

700

800

900

1000

1100

1200

1300

1400

1500

1600

1700

1800

1900

2000

2100

2200

2300

2400

Takamatsu Zaki, N 5° W. (true) 5.7 m
on Atsumi Peninsula

Tenrii Sea.

81C
H.C. 7.
2

2500
2600
2700
2800
2900
3000
3100
3200
3300
3400
3500
3600
3700
3800
3900
4000

Jap chart #126.
34° 31' 15" N.
137° 13' 35" E.

496 12
20 11
471 25
26

SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25	Contents of net.			
50				
100	✓ 1 sp	Fishes		
200	✓ 1 "	Hydibranch mollusks		
300	✓ 2 "	Crustacea macrura		
400	✓ 2 "	" anomura		
500	✓ 2 "	Amphipods		
600	✓ 4 "	Annelids		
700	✓ 1 "	Sipuncularia		
800	✓ 2 "	Ophiurans		
900	✓ 1 "	Crinoids		
1000				

REMARKS:

Staley P. Log- 16.9
Dr

No. 3727 Date 16th May 1900

Machine. — Reel.

Turns 22 Cor. + 2 Depth 34 fms

Shot or lead 26 #

Bottom Mud. Grs Sand & Br. Shells

Bottom temperature

No. of thermometer

Cor. { 21° 25' (true)

Corrected temperature

1 1/2 mile.

Air 64, Surface 62, Drift

Trawl or dredge

SOUNDING WIRE.

DREDGE ROPE.

DOWN.

UP.

TURNS.

DOWN.

UP.

6-33.00	1-34.00	0	6-34.30	53.10
33.25	33.40	32	35.20	6.57.25
		200		
		300		
		400		
		500		
		600		
		700		
		800		
		900		
		1000		
		1100		
		1200		
		1300		
		1400		
		1500		
		1600		
		1700		
		1800		
		1900		
		2000		
		2100		
		2200		
		2300		
		2400		

Omai Yaki LtHO, N 17° E, 9.7 m

Omai Yaki Bank

2500
2600
2700
2800
2900
3000
3100
3200
3300
3400
3500
3600
3700
3800
3900
4000

Jap Chart # 111.

34° 26' 45" N

138° 11' 15" E

49.6

1.2

3.2

1.0

4.6

2

3.2

3.4

SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25	Contents of net			
50				
100	2 sps	Fishes		
200	2 "	Gastropods		
300	2 "	Nudibranchs		
400	2 "	Crustacea	macrura	
500	2 "	"	brachyura	
600	4 "	"	anomura	
700	1 "	Myzostomidae		
800	2 "	Stars		
900	4 "	Ophiurans		
1000	2 "	Polysoa		
	4 "	Alcyonaria		
	3 "	Pendatulids		
	1 "	Actinia		
	2 "	Sponges		

REMARKS:

No.

3728

Date

May 16th 1900:-

Machine.

Reel.

Turns

32

Cor. +

2

Depth

34 fms.

~~Shot or lead~~

26 #

Bottom

Hard, Stiff Clay.

Bottom temperature

No. of thermometer

Time

Cor.

{ 8.21° N (true)

Corrected temperature

Air

62

Surface

64

Drift

1 1/2 m

Trawl or dredge

J.P. Tanner, not weighted.

SOUNDING WIRE.

DOWN.

UP.

TURNS.

DREDGE ROPE.

DOWN.

UP.

6.57.00

6.58.00

0

7.02.30

28.30

5.57.35

6.57.40

32

06.20

7.26.20

100

200

300

400

500

600

700

800

900

1000

1100

1200

1300

1400

1500

1600

1700

1800

1900

2000

2100

2200

2300

2400

Omai Zaki Rtho, N 17° E. 11 1/4 m

Omai Zaki Bank OK HTD. ✓	2500	Jap chart # 111.	
	2600	34° 25' 10" N	
	2700	138° 10' 30" E	
	2800		
	2900		
	3000	496	12
	3100	32	10
	3200	464	2
	3300		32
	3400		34
	3500		
	3600		
	3700		
	3800		
	3900		
	4000		

SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
	Contents of net -			
25	✓ 1 sp	Nudi branch		
50	✓ 1 "	Annelids		
100	✓ 2 "	Stars		
200	✓ 3 "	Alcyonaria		
300	✓ 3 "	Pennatulids		
400				
500				
600				
700				
800				
900				
1000				

REMARKS:

No.

Date

Turns

Cor. +

Reel.

Depth

Shot or lead

Bottom

Bottom temperature

No. of thermometer

Corrected temperature

Air

Surface

Drift

Trawl or dredge

SOUNDING WIRE.

DOWN.

UP.

TURNS.

DREDGE ROPE.

DOWN.

UP.

7.30.10

31.00

30.40

7.30.45

60

100

200

300

400

500

600

700

800

900

1000

1100

1200

1300

1400

1500

1600

1700

1800

1900

2000

2100

2200

2300

2400

7.37.00

8.05.00

7.42.10

8.02.35

Gmai Zaki Lt Ho, N 17° E. 12.7 m

Gmai Zaki Bank of H.C.Z. Ch	2500	Jap chart XIII, N° 23' 40" N 138° 10' E	
	2600		
	2700		
	2800		
	2900	496	12
	3000		
	3100		
	3200		
	3300		
	3400		
	3500		
	3600		
	3700		
	3800		
	3900		
	4000		

SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25	Content of net →			
50				
100	✓ 5	Fishes		
200	✓ 2	Gastropods		
300	✓ 5	Xudibranchs		
400	✓ 3	Annelids		
500	✓ 3	Crustacea anomura		
600	✓ 1	Polyzoa		
700	✓ 2	Amphipods		
800	✓ 1	Caprella		
900	✓ 2	Pycnogonids		
1000	✓ 4	Gadidae		
	✓ 2	Stars		
	✓ 2	Crinoids		
	✓ 1	Actinia		
	✓ 5	Alcyonaria		
	✓ 4	Sponges		
	✓ 3	Pennatulids		

REMARKS:

No. 3730 Date 16 May 1900

Tanner Machine. Reel.

Turns 32 Cor. + 2 Depth 34 fms

Shot or lead 26 pound to 37 "

Bottom Mud & gravel.

Bottom temperature

No. of thermometer } None Cor.

Corrected temperature

Air 61 Surface 64 Drift 1 3/4 m

Trawl or dredge 8 Tanner No. 11 rights

SOUNDING WIRE.

DOWN.

UP.

TURNS.

DREDGE ROPE.

DOWN.

UP.

8.07.00	8.09.05	20	8.19.00	8.45.05
8.07.30	8.07.40	100	8.23.00	8.42.40

200

300

400

500

600

700

800

900

1000

1100

1200

1300

1400

1500

1600

1700

1800

1900

2000

2100

2200

2300

2400

Content of net

6	Fishes	
7	Gastropods	
4	Hydroids	
9	Crustacea	Anomura
2	Annelids	
1	Polychaetes	
1	Pycnogonids	
2	Stars	
4	Splinterans	
2	Crinoids	
1	Actinia	
3	Alcyonaria	
3	Pennatulids	
1	Corals	
4	Sponges	

Omai Zaki Lt Ho, N 17° E. 14.5 m

Omai Zaki Bank		2500	Jap. chart #111.	
OK H.C.A. in		2600	34° 22'	15" N
		2700	138° 09'	20' E
		2800		
		2900		
		3000	496	12
		3100	32	10
		3200	468	2
		3300		32
		3400		34
		3500		
		3600		
		3700		
		3800		
		3900		
		4000		

SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25				
50				
100	One runner broke from frame - close up. Net slightly torn.			
200				
300				
400				
500				
600				
700				
800				
900				
1000				

REMARKS:

Surface net over 8.31.30.
" " in 8.43.30.

No.

3731

Date

16th May 1900

Tanner

Machine.

Reel.

Turns

35

Cor. +

2

Depth

37 fms

Shot or lead

26 pound

Bottom

Crass sand below sh. R

Bottom temperature

No. of thermometer

None

Cor.

Corrected temperature

Air

61

Surface

64

Drift

None

Trawl or dredge

8 Tanner No weights

SOUNDING WIRE.

DOWN.

UP.

TURNS.

DREDGE ROPE.

DOWN.

UP.

8 52 30

8 53 30

0

9 12 45

9 41 50

8 52 50

8 52 50

35/60

9 17 45

100

9 36 00

9 36 05

200

300

400

500

600

700

800

900

1000

1100

1200

1300

1400

1500

1600

1700

1800

1900

2000

2100

2200

2300

2400

Omai'zaki Sho, $17^{\circ} E$. (true) $16\frac{1}{4} m$

Omai'zaki Bank

2500

2600

2700

2800

2900

3000

3100

3200

3300

3400

3500

3600

3700

3800

3900

4000

Jap chart #1110

$34^{\circ} 20'$ $35^{\circ} 2'$

$138^{\circ} 08'$ $45^{\circ} E$

496

35

461

12

10

2

35

37

SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25	Both thermometers pulled from frame			
50				
100				
200				
300	Net slightly torn			
400				
500				
600	Results meagre; practically nothing			
700				
800				
900				
1000				

REMARKS:

No. 37325 Date 16 May 1900

Tanner Machine. Reel.

Turns 29 Cor. + 2 Depth 41 fms

Shot or lead 26 pound

Bottom no specimen (Rocky)

Bottom temperature

No. of thermometer

Cor.

Corrected temperature

Air 63 Surface 65 Drift none

Trawl or dredge 5 1/2' Blake

SOUNDING WIRE.

DOWN.

UP.

TURNS.

DREDGE ROPE.

DOWN.

UP.

9.39.50	9.40.45	9	9.52.00	10.06.30
9.40.15	9.40.17	39/55	9.56.00	
		100	9.57.20	9.57.40
		200		
		300		
		400		
		500		
		600		
		700		
		800		
		900		
		1000		
		1100		
		1200		
		1300		
		1400		
		1500		
		1600		
		1700		
		1800		
		1900		
		2000		
		2100		
		2200		
		2300		
		2400		

Omaizaki Sho, N 17° E. 16.5 m

Omaizaki Bank

OK
H.C.H.

2500
2600
2700
2800
2900
3000
3100
3200
3300
3400
3500
3600
3700
3800
3900
4000

Jap chart #111.
310 20' N
138° 08' 30' E

496 12
39 10
457 2
39
41

SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25				
50				
100	Net torn from frames. Frame bent.			
200				
300				
400				
500	Results meagre; net practically barren.			
600				
700				
800				
900				
1000				

REMARKS:

9 hands lines over at 10.20
Bait fresh meat.
1 small fish.
Lines in at 10.37.40
Nothing caught.

507. 3733 L

No. 3733 Date 16 May 1900
Tanner Machine. Reel-

Turns 47 Cor. + 2 Depth 49 fms

Shot or lead 26 pound

Bottom S. gy. vl.

Bottom temperature

No. of thermometer } none Cor. }
Corrected temperature } 844.7 (true)

Air 68 Surface 64 Drift 1/2 m

Trawl or dredge 8' Tanner No weights

SOUNDING WIRE.		TURNS.	DREDGE ROPE.	
DOWN.	UP.		DOWN.	UP.
11.12.30	11.13.35	0	11.19.00	11.20.40
11.12.55	11.13.05	100	11.23.15	
		200	11.35.10	11.37.50
		300		
		400		
		500		
		600		
		700		
		800		
		900		
		1000		
		1100		
		1200		
		1300		
		1400		
		1500		
		1600		
		1700		
		1800		
		1900		
		2000		
		2100		
		2200		
		2300		
		2400		

Omai Zaki Lt Ho, N 24° E, 9.5 miles

Omai Zaki Bank			Jaf chart #111.	
			34° 27'	15" N
	2500		138° 10'	E
	2600			
	2700			
	2800			
	2900			
	3000	496	12	
	3100	47	10	
	3200	449	2	
	3300		47	
	3400		49	
	3500			
	3600			
	3700			
	3800			
	3900			
	4000			

SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25	Very poor haul; few specimens.			
50				
100	Contents of net =			
200				
300	3 sp Fishes			
400				
500	5 " Gastropods			
600				
700	1 " Crustacea anomura			
800				
900	2 " Amphipods			
1000				
	2 " Annelids			
	1 " Sipunculidae			
	2 " Stars			

REMARKS:

No.

3734

Date

16 May 1900

Tanner

Machine.

Reel.

Turns

46

Cor. +

2

Depth

48 fms

Shot or lead

26

pounds

to 36

Bottom

crs. gy. rcl. S. blk. Sh.

Bottom temperature

No. of thermometer

Corrected temperature

Air

68

Surface

64

Drift

1 1/2 m

Trawl or dredge

8' Tanner No weights

SOUNDING WIRE.

DOWN.

UP.

TURNS.

DREDGE ROPE.

DOWN.

UP.

11 43.05 11 44.40

0

11.51.30

29.00

11 43.50 11.44.00

45

11.57.00

12: 27.00

200

300

400

500

600

700

800

900

1000

1100

1200

1300

1400

1500

1600

1700

1800

1900

2000

2100

2200

2300

2400

Omai Zaka Rt 40, N 25° E. 11.0 m

Omai Zaka Bank	2500	Jag Chart #111	
	2600	34° 26' N	
OK H. O. F.	2700	138° 08' 45" E	
	2800		
	2900		
	3000		
	3100	496	12
	3200	46	10
	3300	450	2
	3400		46
	3500		48
	3600		
	3700		
	3800		
	3900		
	4000		

SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25	Contents of net			
50				
100	✓ 3 sps	Fishes		
200	✓ 4 "	Gasteropods		
300	✓ 1 "	Nudi branchio		
400	✓ 1 "	Crustacea macrura		
500	✓ 3 "	anomura		
600	✓ 2 "	Amphipods		
700	✓ 1 "	Caprells		
800	✓ 2 "	Pycnogonids		
900	✓ 2 "	Stars		
1000	✓ 3 "	Ophiura		
	✓ 1 "	Echini		
	✓ 1 "	REMARKS: Annelids		
	✓ 2 "	Alcyonaria		
	✓ 3 "	Penicillulids		
	4 "	Sponges		

Hutchinson

501.

No. *3735* Date *16 May 1900*

Tanner Machine. Reel.

Turns *34* Cor. + *2* Depth *36 fms*

Shot or lead *26 lb.*

Bottom *crs. gy. vol. S. bk. Sh.*

Bottom temperature

No. of thermometer

Corrected temperature

Air *66* Surface *65* Drift *1 1/4 m*

Trawl or dredge *8' Tanner, No. Wrights*

SOUNDING WIRE.

DOWN.

UP.

TURNS.

DREDGE ROPE.

DOWN.

UP.

<i>1-</i> 19.20	20 =	<i>34</i> 0	<i>P.M.</i> 12.52.30	18.40
19.45	19.50	<i>75</i>	55.50	1- 16.00
		200		
		300		
		400		
		500		
		600		
		700		
		800		
		900		
		1000		
		1100		
		1200		
		1300		
		1400		
		1500		
		1600		
		1700		
		1800		
		1900		
		2000		
		2100		
		2200		
		2300		
		2400		

Omai Zaki Lt Ho, N 15° E. 11.4 m

Omai Zaki Bank

2500
2600
2700
2800
2900
3000
3100
3200
3300
3400
3500
3600
3700
3800
3900
4000

Jap chart #111.

54° 25' N

138° 08' 30" E

496
34
—
462

12
10
—
2
34
—
36

SERIAL TEMPERATURES.

DEPTH.	TEMP.	NO. OF THER.	COR.	COR. TEMP.
25	Contents of net -			
50				
100	✓ 1 sp	Fishes		
200				
300	✓ 1 "	Gasteropods		
400	✓ 2 "	Stars		
500	✓ 3 "	Ophiurans.		
600	✓ 2 "	Crinoids		
700	✓ 2 "	Alcyonaria		
800	✓ 3 "	Pennatulids		
900				
1000				

REMARKS:

*No.**Date .**Machine. Reel.**Turns**Cor. +**Depth**Shot or lead**Bottom**Bottom temperature**No. of thermometer**Cor.**Corrected temperature**Air**Surface**Drift**Trawl or dredge*

SOUNDING WIRE.		TURNS.	DREDGE ROPE.	
DOWN.	UP.		DOWN.	UP.
		0		
		100		
		200		
		300		
		400		
		500		
		600		
		700		
		800		
		900		
		1000		
		1100		
		1200		
		1300		
		1400		
		1500		
		1600		
		1700		
		1800		
		1900		
		2000		
		2100		
		2200		
		2300		
		2400		

29.20
 1.20
 7.00

40
 24
 17



17

W. J. "Candidaigue"
 Soap of W. J.
 Broken up at the
 Norfolk Navy Yard
 about 1880

$$\begin{array}{r} 5 \quad 46 \\ 4 \quad 31 \\ \hline 15 \\ 60 \\ \hline 75 \end{array}$$

$$\begin{array}{r} 8 \quad 2 \\ 40 \quad + \quad 16 \\ \hline 75 \quad 15 \end{array}$$

- 1 - west $5/6$
- 2 - N 75° W. $1\frac{1}{4}$
- 3 - S 74° W. $7/8$
- 4 - N 87° W. $1\frac{1}{4}$
- 5 -

(N 86° W) $2/3$