11 05 12

Field Record: Makua Shellfish Study							
Sample Processor	Maren Anderson						
Data Recorder	Yvonne Parry / Dawn A. Lieces						
Additional Personnel and Duties							
Environmental Conditions	See Field Notes						
Date	Time	Location	Species	Length/Width (cm)	Mass (g)	Composite ID	
10/01/08	1200	SBNS / ~~Habitat~~ DAL	COLATR	6.2	47	SBNS-Ø1	Jar 12 (cont.)
				6.2	43		
				6.3	45		
				6.2	45		511
				6.4	33		
				6.0	26		
				6.0	27		
10/02/08	1115	SBNS	COLATR	6.5	37	SBNS-Ø1	517.0g Jar 13
				6.0	32		
				6.6	38		
				7.9	62		
				6.6	45		
				7.3	58		
				7.5	55		
				6.1	27		
				6.0	26		
				6.2	40		
				6.8	41		
				6.7	42		503
	1115	SBNS	COLATR	6.0	30	SBNS-Ø1	Jar 14
				6.4	33		
				6.0	26		
				7.1	42		
				5.8	25		
				6.0	20		

Field Record: Makua Shellfish Study						
Sample Processor	Maren Anderson					
Data Recorder	Yvonne Parry					
Additional Personnel and Duties						
Environmental Conditions	see Field notes					
Date	**Time**	**Location**	**Species**	**Length/Width (cm)**	**Mass (g)**	**Composite ID**
10/2/08	1115	SBNS	COLATR	6.2	30	SBNS-01
↓	↓	↓	↓	6.5	39	↓
↓	↓	↓	↓	6.7	21	↓
↓	↓	↓	↓	6.5	26	↓
↓	↓	↓	↓	5.5	25	↓
↓	↓	↓	↓	6.0	30	↓
↓	↓	↓	↓	6.7	50	↓
↓	↓	↓	↓	6.6	40	↓
↓	↓	↓	↓	6.5	28	↓
↓	↓	↓	↓	5.8	31	↓
↓	↓	↓	↓	5.0	16	↓
↓	↓	↓	↓	5.6	40	↓
↓	↓	↓	↓	6.2	44	↓
↓	↓	↓	↓	5.2	21	↓

↑ 617
↓

Field Record: Makua Shellfish Study

Sample Processor	Marcn Anderson
Data Recorder	Dawn A. Lleces
Additional Personnel and Duties	
Environmental Conditions	See field notes

Date	Time	Location	Species	Length/Width (cm)	Mass (g)	Composite ID
10/01/08	1200	SBNS/Habitat	PLADEP	3.9	32	SBNS-02

Sandy Beach Oct 2, 2008

Time: 900 - 1335

TE team: Maren Anderson, Yvonne Parry

01 team: Tom Ogawa, Don De Lepena

weather: sunny, trades ~ 10 mph, 80 - 85° F

Equipment: scale, minnow trap (2 cylindrical, 1 square)

900 TE Maren Anderson arrives on site

915 TE Yvonne Parry arrives on site

930 01 team arrives on site

945 Health and Safety tailgate meeting

955 01 team starts baiting minnow traps with kahala (Amberjack)

1005 01 team goes out to intertidal zone at Sandy Beach to set crab traps.

1015 01 team goes out to collect more urchins (helmet urchin), TE set up equipment

1110 01 team returns with urchins and moves on to check on minnow traps. TE team starts measuring and weighing urchins
These urchins are part of sample SBNS-01

1125 measuring is completed and all urchins necessary for analysis have been placed in jars, approximately 20 urchins are placed back onto the rock in the splash zone; 01 checks crab traps, no crabs found

1200 01 off site for lunch

1215 01 returns and checks crab traps (minnow), no crabs found in trap

1300 01 team performs final check of minnow traps, no crabs could be trapped, traps are removed from area

1305 TE packs up equipment

1335 TE & 01 off site

"Rite in the Rain" ALL-WEATHER WRITING PAPER

Oct 2, 2009

Field notes

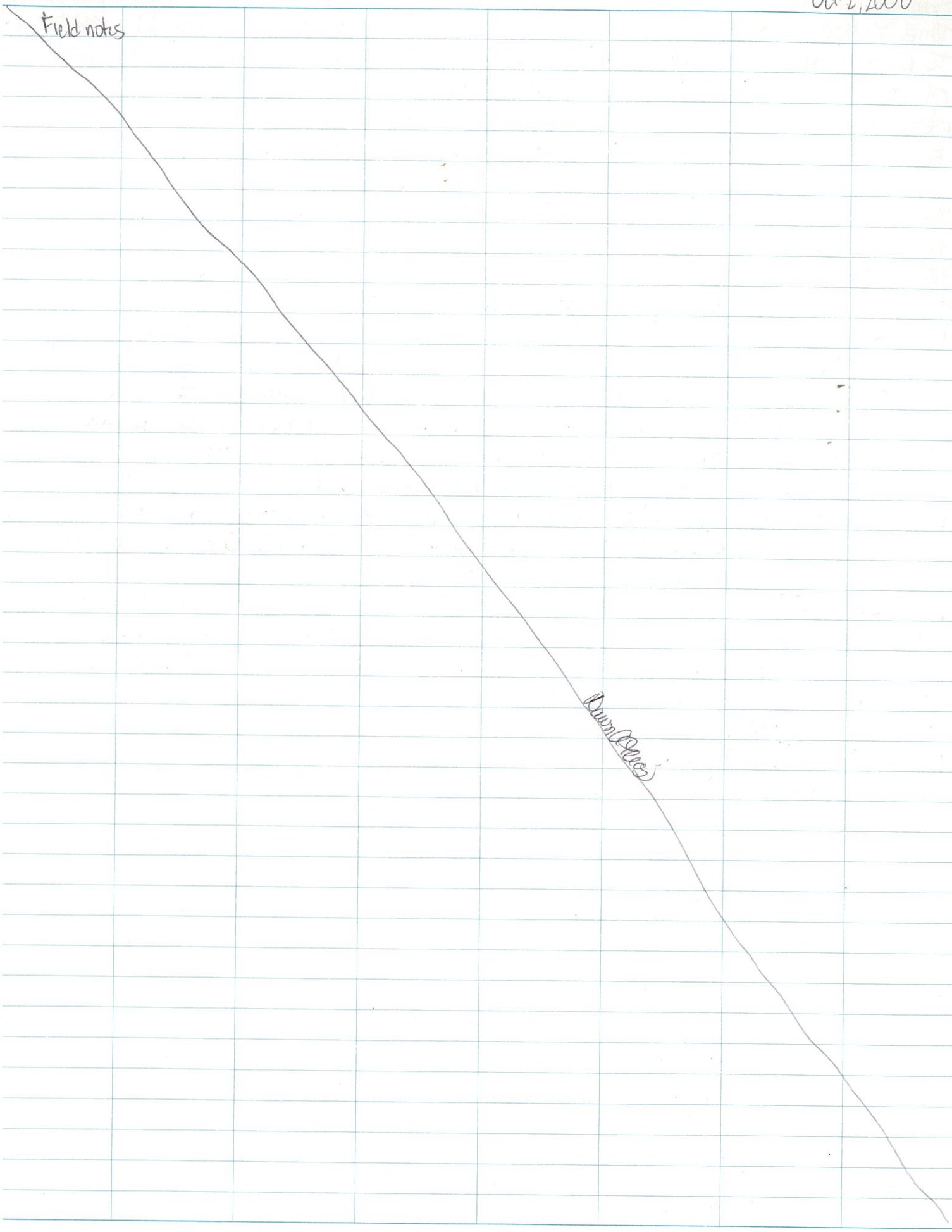


Photo Log — Sandy Beach Day 2 — 10.2.08

103-3343	01-Tom taking minnow traps out to set baited traps for crab at Sandy Beach Intertidal zone. Facing northeast.
103-3344	01-Tom setting the baited crab trap in a rocky ledge at Sandy Beach Intertidal zone. Facing east.
103-3345	View of a baited crab trap on rocky intertidal area of Sandy Beach Intertidal zone. Facing northeast. (crab trap #1)
103-3346	View of cylindrical baited crab trap on rocky intertidal area of Sandy Beach Intertidal zone. Facing east. (crab trap #2)
103-3347	View of cylindrical baited crab trap on rocky intertidal area of Sandy Beach Intertidal zone. Facing east. (crab trap #2)
103-3348	View of cylindrical baited crab trap placed in rocky ledge at Sandy Beach intertidal zone. Facing east. (crab trap #2)
103-3349	View of rectangular baited crab trap on rocky intertidal zone at Sandy Beach. Facing northeast. (crab trap #1)
103-3350	View of rectangular baited crab trap on rocky intertidal zone at Sandy Beach. Facing northeast. (crab trap #1)
103-3351	A crab (potentially scaly rock crab) moving towards the rectangular baited crab trap at Sandy Beach. Facing northeast.
103-3352	Rocky intertidal zone at Sandy Beach. Facing northeast
103-3353	Splash zone on intertidal area at Sandy Beach. Facing northeast.
103-3354	Helmet urchins from sampling effort at Sandy Beach Intertidal zone.
103-3355	Tom from 01 picking up the baited crab trap at Sandy Beach. Facing nor
103-3356	Intertidal zone at Sandy Beach. Facing northeast.
103-3357	Molt from a rock crab. Found at Sandy Beach.

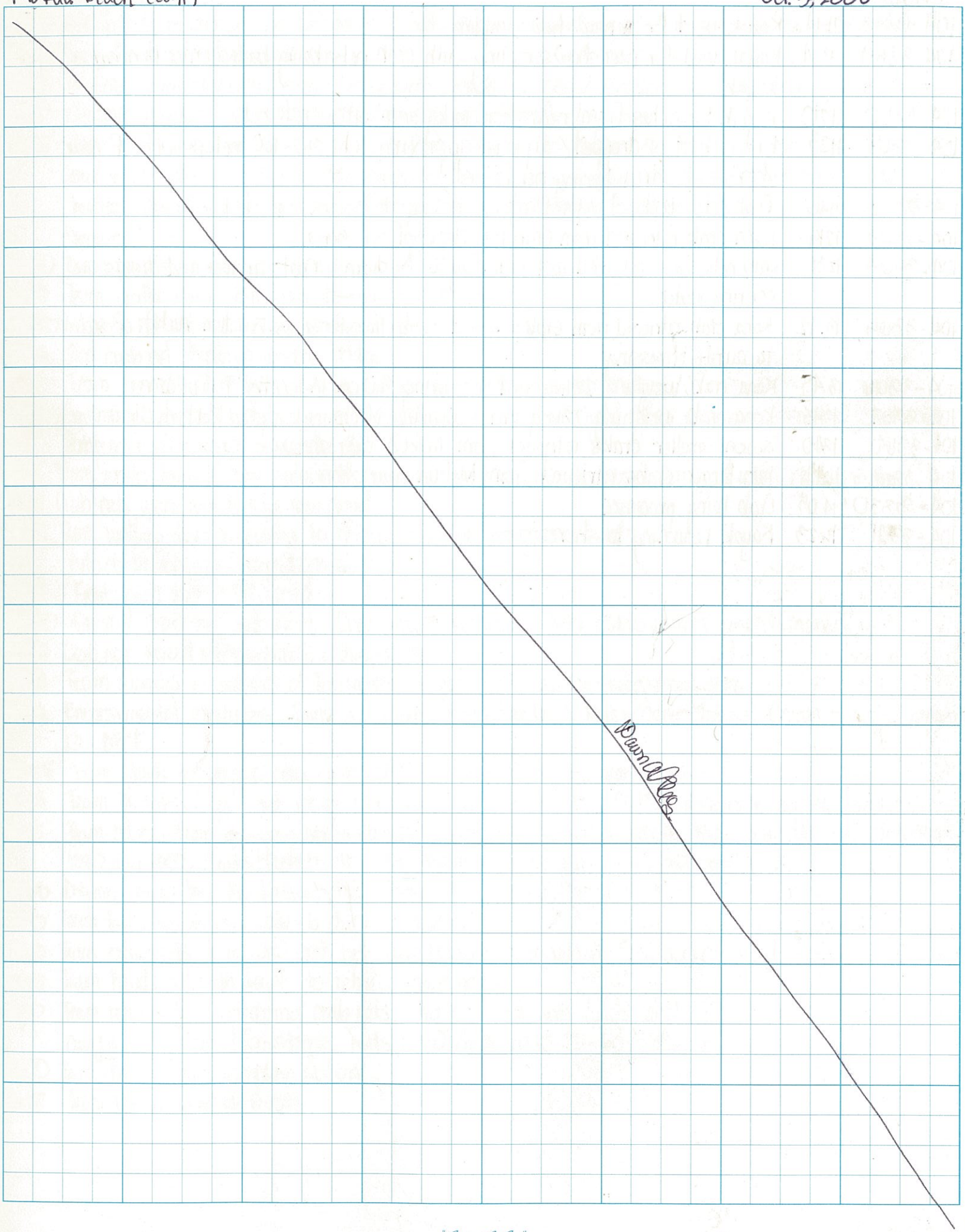
"Rite in the Rain" ALL-WEATHER WRITING PAPER

Mākua Beach. Oct 3, 2009

915 Tetra Tech arrives at Makua Military Reserveation range control to sign in, check out keys and radio.
940 Tetra Tech team arrives at Mākua Beach. Susan Carstenn, Dawn A. Lleces, Maren Anderson Mālama Mākua representative Leandra Wai and Damien (3yr old grandson) arrives and drives in with field team.
945 Tetra Tech team Gets up sample station
1020 Oceanic Institute's Tom Ogawa arrives at Mākua Beach
1030 Tail gate safety meeting
1040 Crab nets are baited before being deployed
1040 Environmental conditions. Skies are overcast with little to no trade winds coming from the south. Temperature is approximately 85-87° F. Water is flat to 1 ft
1120 Kayak is deployed from nearshore rocky area and crab nets are deployed from kayak, approximately 50m - 100 m from near sh
1140 Kayak returns from deploying crab nets. Crab nets were deployed in approximately 20 ft of water
1150 A pod of spinner dolphins arrive at northern end of Makua Bay
200 Dolphins are swimming near crab nets. Tetra Tech observes buoys being pulled under water and goes out to check on the nets after dolphins have left immediate area.
210 Tropical fisherman arrives on a boat and are cruising in the areas where the crab net are laid. Field crew return from checking on crab nets. Nets need to be re baited and redeployed. Tom Ogawa is considering staying out in kayak to watch nets.
220 Field crew heads out with kayak to rebait crab nets
1227 Tropical Fish fisherman boat and crew are leaving the area
140 Leeandra Wai - 696-2823 Leeandra leaves the site and asks us to call her if we leave before she returns
320 Environmental conditions: Winds increase with rain clouds overhead. Light rain, with overcast and some sun. Winds increase over waters too
330 Kayak is still out on the water and dolphin pod is still present within the bay area
340 Kayak returns shore with 6 kona crab.
350 Field team start to process samples. Kona Crab - frog crab - Ranina ranina
425 Field kayak is deployed to check bait in crab nets
520 Kayak returns to shore with 2 kona crabs
525 Field crew begins to ~~sample~~ process samples
550 Field team releases 7 kona crabs not needed for sampling back into water. Team begins to break down equipment.
625 Field team departs from sampling site.

Makua Beach (cont)

Oct. 3, 2008



"Rite in the Rain"
ALL-WEATHER WRITING PAPER

Photo Log

Oct 3, 2008

104-3358	11:14	Kayak used for a near shore sampling
104-3359	11:14	Kayak used for near shore sampling with crab nets being loaded onto front end of the kayak.
104-3360	1120	Kayak launches from near shore rocky area with crab nets.
104-3361	1123	First crab net is dropped/deployed approximately 90-100 meters off of near shore rocky area. Facing northeast
104-3362	1140	Crab nets deployed with floaters showing on eastern side of the kayak
104-3363	1219	Kona crab retrieved from crab nets deployed off shore.
104-3364	1231	Crab nets are rebaited and redeployed. A diving boat arrives and divers are entering water.
104-3365	13:42	Kona crab retrieved from crab nets and being transfered to 5 gallon bucket of sea water to await processing
104-3366	13:45	Kona crab weighing 236 g and measuring 9.0 cm in length. Top view
104-3367	1345	Kona crab weighing 236 g and measuring 9.0 cm in length. Bottom view
104-3368	1340	Seven smaller crabs retrieved from Makua near shore.
104 3369	1349	Two larger crabs retrieved from Makua near shore.
104-3370	14:05	Crab being processed
104-3371	16:23	Kayak returning to shore

Field Record: Makua Shellfish Study	
Sample Processor	Maren Anderson
Data Recorder	Dawn Lleces
Additional Personnel and Duties	
Environmental Conditions	see Field Notes

Date	Time	Location	Species	Length/Width (cm)	Mass (g)	Composite ID
10/3/08	~~1300~~ 1400	MNS	RANRAN	7.8 / 6.2	156	MNS-05
				9.0 / 6.8	236	-
				9.0 / 7.0	223	-
				7.4 / 6.0	132	-

Nānākuli Muliwai — Oct 6, 2008

0946 Tetra Tech team arrives on site on north side of Farrington Highway. Team present: Susan Carstenn, Dawn A. Lieces, Maren Anderson

0950 Environmental conditions. Sunny with clouds overhead. Temperatures at 85°F. No trade winds

1010 Oceanic Institute team arrives. Tom Ogawa, Don De Lepeka.

1015 Team takes a look at access to the muliwai. Muliwai is bordered by private properties on the north and south sides, with kiawe trees hindering direct access to the water areas. The bottom of the muliwai directly under Farrington Highway bridge and immediately west of the bridge is covered in seaweed.

1030 Team prepares crab nets to be deployed in muliwai.

1050 Team walks down to muliwai to deploy crab nets

1050 1st crab net deployed under bridge.

1055 2nd crab net deployed under bridge.
Team reports that there was a carcass of a cat under the bridge

1130 Environmental conditions: Skies are completely overcast with light rains coming in from the south west. Temperature is approximately 82°F.

1140 Team walks down to ~~the~~ muliwai to check on crab nets. Crab nets were retrieved with nothing in them. Crab nets were immediately redeployed.

1210 Team walking down to muliwai to retrive nets. ~~One prawn retrieved~~
Macrobrachium grandemanus

1215 First crab net retrieved

1220 Second crab net retrieved. One prawn retrieved, Macrobrachium grandemanus

1245 Crab nets were retrieved with nothing inside

1250 Team relocates to east side of Farrington Highway to sample near shore area.

1305 Environmental conditions: Sunny skies with clouds overhead. Rains have stopped. Ocean is flat. Temperature is 85°F,

1305 Team starts to prepare six crab nets with bait, to deploy near shore.

1325 Team ~~X~~ takes kayak out, wearing life vests, and paddles out in flat conditions to deploy crab nets

1345 Team returns from deploying six crab nets near shore at Nanakuli beach. Nets were deployed between 1330 and 1340. Team reports that the bottom is covered with sand and some rocks.

1430 Dolphin cruise boat, Kai Ko'olina, rides through the Nānākuli bay area

1440 Team takes kayak into water to check on crab nets

1510 Team returns to shore. One crab net was brought in to rebait. Another crab net could not be found.

1535 Team heads out with kayak to retrieve crab nets

1550 Team returns from retrieving crab nets. One box crab was caught and released. One kona crab was caught and processed for a sample. Nets were deployed in 50-60 ft of water.

1600 Team breaks down sampling station

1615 Team leaves Nānākuli Beach

"Rite in the Rain" ALL-WEATHER WRITING PAPER

Oct 6, 2008

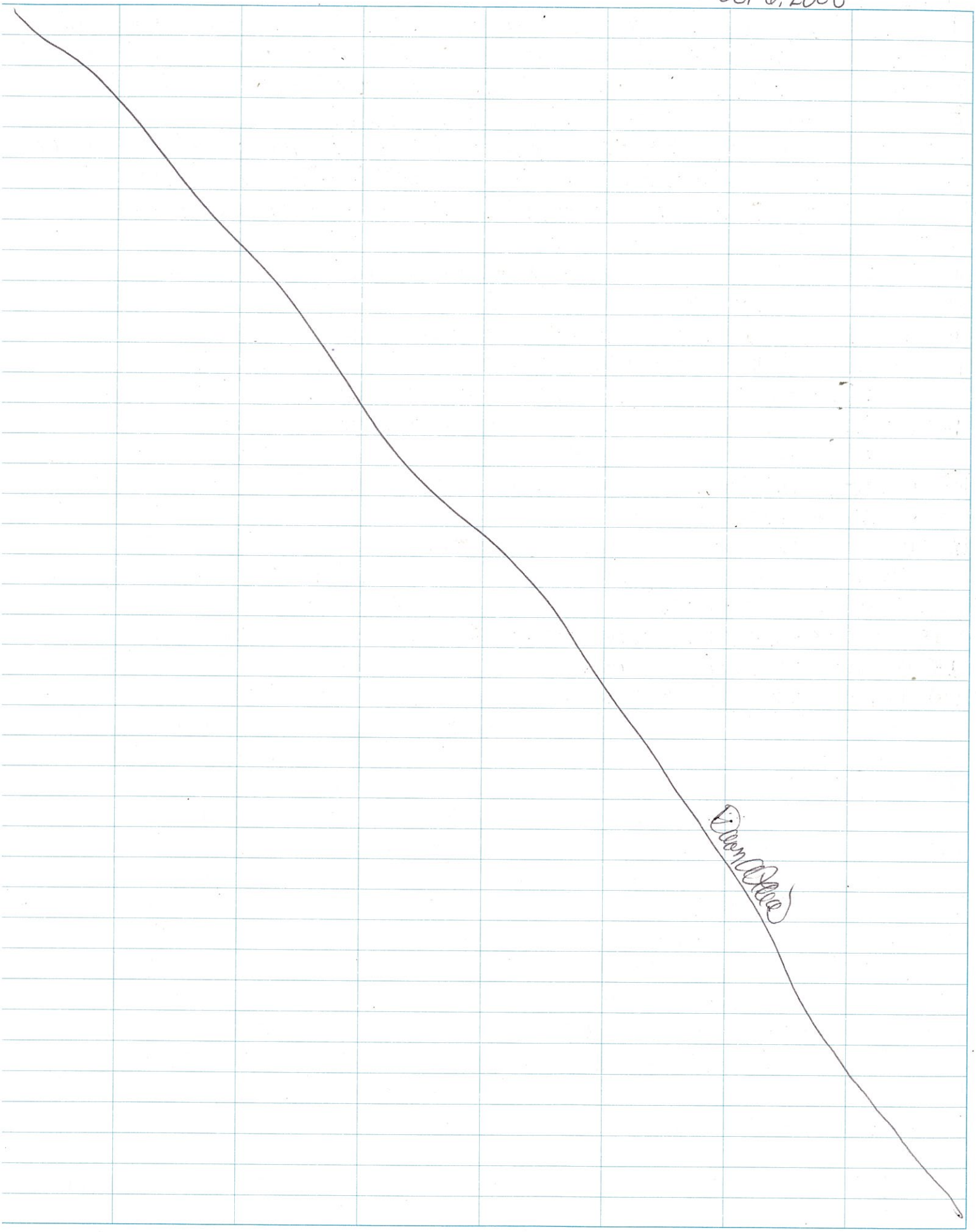


Photo Log — Nānākuli Muliwai — Oct 6, 2008

105-3374		Nanakulia muliwai, taken from bridge on Farrington Highway. Looking ~~North~~, Time 1009
105-3375	1010	Nanakuli muliwai. Taken from bridge on Farrington Highway. Looking ~~North~~ West
105-3376	1103	Team inspects muliwai west of Farrington Hwy. Looking west.
105-3377	1106	Oil sheen on top of muliwai, at adjacent to highway bridge
105-3378	1224	Macobrachium grandemanus retrieved from Nānākuli muliwai, west of Farrington Highway
105-3379	1224	Macobrachium grandemanus.
105-3380	1304	Nānākuli near shore area showing sandy beach with sandy bottoms. Facing east
105-3381	1320	Team takes ~~by~~ kayak out to deploy crab nets. Facing East.
105-3382	1430	Dolphin cruise tour boat ~~Rock~~ Kai Koolina drives through the Nānākuli bay area, near crab nets. Facing east.
105-3383	1517	Helmet urchin on nearshore rocky area at Nānākuli beach.
105-3384	1517	Helmet urchin on near shore rocky area at Nānākuli beach
105-3385	1519	Rock crab on near shore rocky area at Nānākuli beach.
105-3386	1518	Helmet urchin
105-3387	1520	Rock crab.
105-3388	1524	Habitat on the rocky near shore area at Nānākuli beach.
105-3389	1524	Rock crab.
105-3390	1525	Rock crab
105-3391	1531	Habitat on the rocky near shore area at Nānākuli beach.
105-3392	1552	~~Rock~~ Box crab caught in near shore area at Nānākuli beach
105-3393	1552	Box crab and Kona crab in crab nets
105-3394	1553	Box crab set in kayak.
105-3395	1553	Kona crab caught for sample.

"Rite in the Rain" ALL-WEATHER WRITING PAPER

Field Record: Makua Shellfish Study							
Sample Processor	Maren Anderson						
Data Recorder	Dawn A. Lieces						
Additional Personnel and Duties	Susan Carstenn						
Environmental Conditions	See ~~onsite data~~ Field notes						
Date	**Time**	**Location**	**Species**	**Length/Width (cm)** (Full length / carapace length)	**Mass (g)**	**Composite ID**	
10-6-09	1225	NM	MACGRA	7.3/3.4	9	NM-01	Jar 1
10-7-09	1442	NM	MACGRA	7.2/3.4	9	NM-01	
				7.5/3.6	9		
				6.9/3.3	8		
				7.2/3.4	9		
				7.1/3.5	5		
				7.4/3.5	5		
				7.5/3.6	8		
				7.2/3.5	6		
				7.3/3.6	6		
				7.1/3.4	5		
				7.6/3.7	6		
				6.5/3.1	4		
				7/3.3	3		
↓	↓	↓	↓	7.5/3.6	6	↓	
10-6-09	1555	NNS	RENREN	6.75/5.3	94	NNS-01	
10-7-09	1442	NM	MACGRA	7.1/3.5	9	NM-01	Jar 1 (cont)
				6.2/2.7	4		
				7.0/3.3	6		
				6.4/3.0	3		
				4.9/2.2	0.5		
				5.3/2.4	1		
				5.7/2.5	2		
				6.9/3.4	5		
				5.4/2.6	1		

Field Record: Makua Shellfish Study						
Sample Processor	Maren Anderson					
Data Recorder	Dawn A. Lees					
Additional Personnel and Duties						
Environmental Conditions	See field notes					
Date	Time	Location	Species	Length/Width (cm)	Mass (g)	Composite ID
10-7-09	1442	NM	MACGRA	5.4 / 2.5	1	NM-01
				5.0 / 2.4	1	
				5.3 / 2.5	1	
				5.4 / 2.5	3	
				4.9 / 2.2	2	
				6.0 / 2.6	3	
				5.0 / 2.3	0.5	
				3.6 / 1.7	0.25	
				4.3 / 2.0	0.25	
				3.9 / 1.6	0.25	
				5.6 / 2.5	2	
				5.7 / 2.5	3	
				5.7 / 2.4	3	
				4.5 / 1.9	2	
				6.0 / 2.7	3	
				5.4 / 2.5	2	
				4.5 / 2.0	0.5	
				5.6 / 2.6	2	
				4.0 / 1.9	1.5	
				4.9 / 2.0	0.5	
				5.0 / 2.3	1	
				4.7 / 2.1	1	
				5.2 / 2.4	2	
				3.4 / 1.7	~~0.25~~ 1	
↓	↓	↓	↓	3.2 / 1.5	~~0.25~~ 1	↓

Jar 1 (cont.)

Field Record: Makua Shellfish Study							
Sample Processor	Maren Anderson						
Data Recorder	Dawn A. Lleces						
Additional Personnel and Duties							
Environmental Conditions	see Field Notes						
Date	Time	Location	Species	Length/Width (cm)	Mass (g)	Composite ID	
10-07-08	1442	NM	MACGRA	7.1 / 3.5	8	NM-01	Jar 1 (cont.)
↓	↓	↓	↓	6.5 / 2.9	7	↓	
				7.8 / 3.6	6		
				6.7 / 3.2	6		
↓	↓	↓	↓	7.3 / 3.7	7	↓	
10-07-08	1442	NM	MACGRA	6.9 / 3.6	8	NM-01	Jar 2
				6.9 / 3.1	5		
				5.6 / 2.5	2		
				7.3 / 3.5	7		
				4.9 / 2.3	1		
				7.0 / 3.3	5		
				5.5 / 2.5	2		
				5.3 / 2.5	2		
				5.2 / 2.5	1		
				5.2 / 2.4	1		
				5.7 / 2.6	3		
				5.0 / 2.7	2		
				6.7 / 3.3	5		
				5.5 / 2.5	2		
				5.9 / 2.6	3		
				4.6 / 2.2	1		
				7.0 / 3.5	5		
				4.7 / 2.3	1		
				5.2 / 2.5	2		
				5.1 / 2.4	1		

Field Record: Makua Shellfish Study						
Sample Processor	Marin Anderson					
Data Recorder	Dawn A. Lecos					
Additional Personnel and Duties						
Environmental Conditions	See field notes.					
Date	**Time**	**Location**	**Species**	**Length/Width (cm)**	**Mass (g)**	**Composite ID**
10.07.08	1442	NM	MACGRA	4.4/2.2	2	NM-01
↓	↓	↓		5.2/2.5	1	↓
10.08.08	1000	NM	MACGRA	7.5/3.8	6	
				7.0/3.3	5	
				7.4/3.6	10	
				7.5/3.7	7	
				7.8/3.8	9	
				7.4/3.6	9	
				7.8/3.7	7	
				7.2/3.3	8	
				8.3/4.0	9	
				7.0/3.4	5	
				5.4/2.5	3	
				5.8/2.8	2	
				5.2/2.4	3	
				4.7/2.4	2	
				6.4/3.2	4	
				5.4/2.4	1	
				5.8/2.8	3	
				5.2/2.3	2	
				3.7/1.8	0.5	
				5.7/2.8	3	
				5.4/2.3	3	
				5.6/2.5	3	
				4.8/2.2	2	

Jar 2 (cont.)

170.5

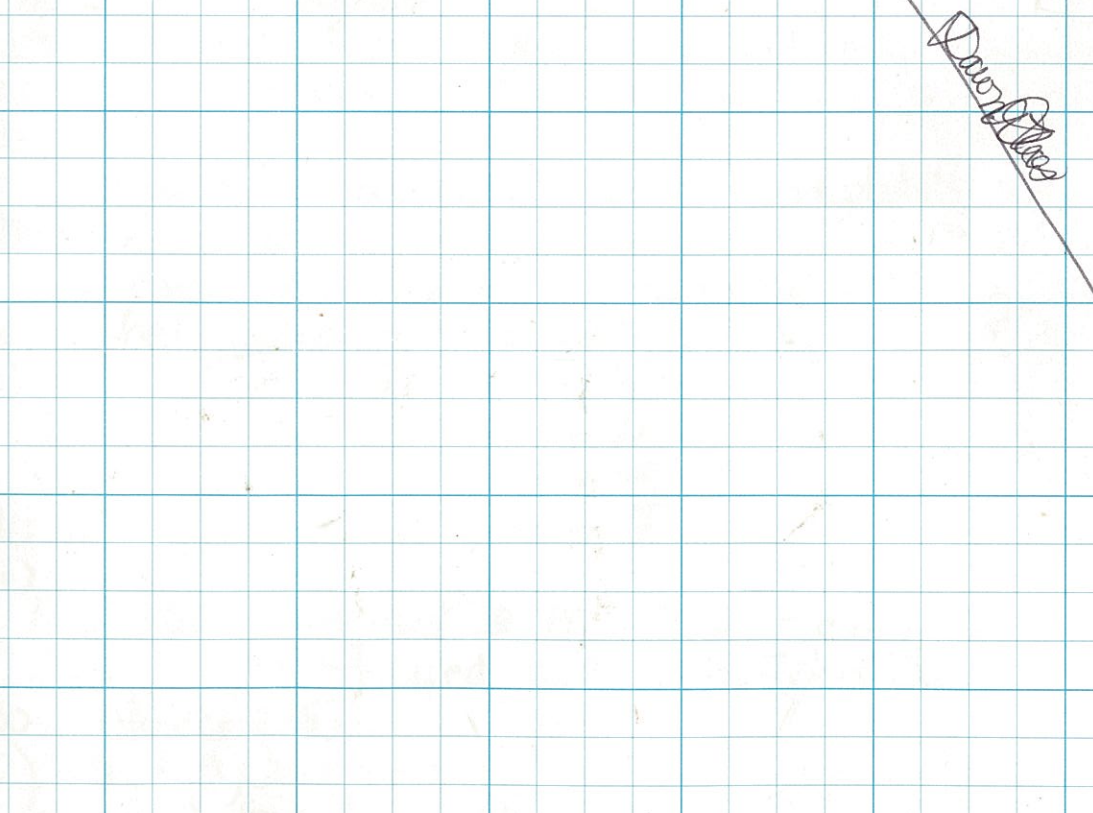
Field Record: Makua Shellfish Study						
Sample Processor	Maren Anderson					
Data Recorder	Dawn A. Lleces					
Additional Personnel and Duties						
Environmental Conditions	See field notes					
Date	Time	Location	Species	Length/Width (cm)	Mass (g)	Composite ID
10-07-06	1625	NM	PACMIN	3.1	27	NM-02
				2.4	12	-
				1.5	3	
				2.3	10	

Field Record: Makua Shellfish Study						
Sample Processor	Maren Anderson					
Data Recorder	Tom Ogawa / Susan Carstenn					
Additional Personnel and Duties						
Environmental Conditions	see Field Notes					
Date	Time	Location	Species	Length/Width (cm)	Mass (g)	Composite ID
10.08.08						

Nānākuli Muliwai — Oct 7, 2008

10:10 Tetra Tech arrives on site
10:15 Phone conference call
Paul Tise, Rick , Gary Floyd Susan Carstenn, Dawn A. Lleses, Maren Anderson
What direction on will the sampling team take and where will our efforts be focused
Settlement Aggreement does not specify species. We do not need to return to Sandy Beach. Todays efforts will be focused on Nānākuli. The original SAP does not contain near shore at Nānākuli. Because we're not catching anything in the muliwai, we are shifting focus to near shore
Keep going on muliwai ~~tomorrow~~ todays at Nānākuli
Makua tomorrow.
If we do not have the samples from the muliwai
1026 Environmental Conditions: Extremely sunny conditions. Clouds overhead, temperatures are 87° F and waters are flat.
1026 Oceanic Institute arrive on site, Tom Ogawa and Don De Lepena.
1046 Traps and nets will be deployed in the muliwai. Four minnow traps and six crab nets are
11:30 baited with kahala fish parts. Paul Tise and Rick depart before nets and traps are deployed
~~11:00~~ Nets and minnow traps are deployed in Nānākuli muliwai, under Nānākuli bridge. Field team sees several prawns in the vicinity of the traps. Traps and net positions are manipulated to take advantage of the depth of the water and position of the debris to make sure that trap entrances are accessible
Traps and nets are left in the muliwai. ~~to~~
1313 Field team returns to muliwai to check on traps. Scoop nets (with 10 inch nets) on short (~24 inch) and long (~42 inch) handles are ~~the~~ brought to use as active device for crabbing / prawning
1413 Field team returns with prawns. Prawns were caught using passive traps and scoop nets.
1430 Environmental conditions: Sunny with clouds overhead. Winds and gusts are coming in from South east direction
1450 Team returns to muliwai while samples continue to be processed
1625 Team retrieves two minnow traps from the muliwai. Two traps are left for over night deployment
1630 Team begins to process more prawns
1709 Team breaks down sample station and departs from site.

Oct 7, 2008



"Rite in the Rain"
ALL-WEATHER WRITING PAPER

Photo Log

Oct. 7, 2008

106 - 3396	11:19	Four minnow traps and six crab nets being prepared with bait to be deployed
106 - 3397	11:40	Crab nets deployed under the bridge in Nānākuli muliwai.
106 - 3398	1141	Minnow traps are placed near branches sitting near the edge of the muliwai under the Nānākuli Bridge.
106 - 3399	1144	Trash and other debris caught in the seaweed at bottom of the muliwai
106 - 3401	1153	Last net is placed in the muliwai.
106 - 3402	1155	Prawns seen swimming around minnow trap.
106 - 3403	1201	Samoan crab sitting at the bottom of the muliwai.
106 - 3404	1320	Scoop nets are used in an attempt to catch prawns
106 - 3405	1320	Scoop nets are used near trash at the edge of the muliwai.
106 - 3406	1332	Minnow trap near edge of muliwai.
106 - 3407	1431	Bottom of prawn
106 - 3408	1431	Prawns.
106 - 3409	1431	Prawns Dorsal view
106 - 3410	1437	Prawns. Lateral view.
106 - 3411	1439	Prawns of various sizes. Lateral view

October 8, 2008 Nānākuli & Makua Sites

0900 Susan Carstenn and Maren Anderson arrive on site at Nānākuli Beach Park to meet with OI team and pick up traps left in the Muliwai overnight.

0930 The OI team arrives on site.

0945 OI team picks up crab/prawn traps that were set in the Muliwai overnight.

1000 Susan Carstenn departs from Nānākuli to go to Makua site to meet any possible Malama Makua individuals on site.

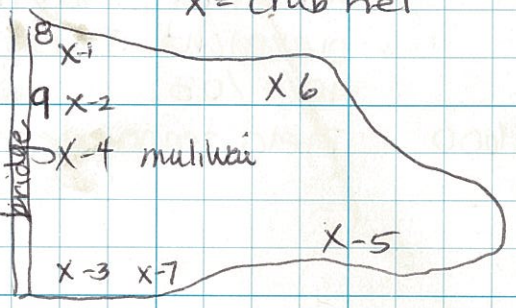
1000 OI team brings traps back to processing area with Macrobrachium grandimanus.

1100 Arrive Makua - deploy minnow trap under bridge at South muliwai

Environmental Conditions - partly cloudy, Air temperature - ~~80's~~ mid 80's

water condition - 6" visibility

X = crab net



11:07 deploy crab net 1 in North muliwai

11:08 " " " 2

11:11 " " " 3

11:14 " " " 4

11:17 " " " 5

11:20 " " " 6

11~~2~~:42 deployed round minnow trap 7 -

11~~2~~:46 " square fish traps 8 & 9 -

11~~2~~:50 checked nets 3, ~~4~~ 4, 2 & 1 - nothing

11:56 " " 5 - nothing

12:00 " " 7 - nothing

enviromental conditions - completely overcast

1:10 checked trap 3 - nothing

env. conditions - partly cloudy

~~1224~~ net ~~trap~~ 4 - empty

(1312) " 2 empty

" 1 empty

" 5 empty

1:20 " 6 empty

(1320)

Pachygrapsus ~~sp~~ minutus - crab from Nanakuli Keyed out by Tom O.

2:30 Checked nets

(1430) 1, 2, 4, 3 empty

fish trap 8 empty

fish trap 9 empty

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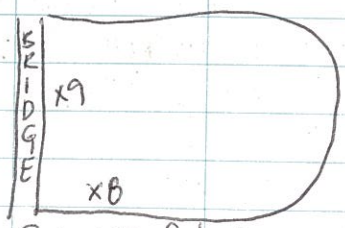
1445



x=fish trap

Square fish traps re-deployed in Muliwai to be left overnight and retrieved in the morning.

Crab nets 5 & 6 also came up empty.

1500 Field team departs from Makua site.

1530 Field team arrives at Nānākuli muliwai.

1545 OI team deploys two cylindrical traps into the Nānākuli muliwai. Traps are set underneath the bridge and left overnight. These traps will be checked in the morning 10/9/08.

1600 Field team departs from Nānākuli muliwai.

Photo Log 10.8.08 Nānākuli & Makua

107-3412 View of bridge that crosses over the North muliwai at Makua. Crab nets set on bridge waiting to be deployed. Facing Northeast.

107-3413 View of crab net #5 being deployed by OI team in North Makua muliwai. Facing east.

107-3414 Don from OI deploying crab net #6 in North muliwai at Makua. Facing east.

107-3415 Don from OI deploying crab net #6 in North muliwai at Makua. Facing east.

107-3416 Tom from OI deploying cylindrical minnow trap in North muliwai at Makua. Facing east.

107-3417 OI team deploying two ~~#~~ square minnow traps off bridge in North muliwai at Makua.

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10-9-00

Nānākuli → Mākua

915 Tt team arrives on site at Nānākuli beach.
Environmental conditions: Sunny with clouds overhead. Temparatures approximately 88°F. Ocean conditions are flat.

930 OI team arrives on-site

945 OI team goes down to muliwai to check on traps left over night. One cylider trap was smashed open so it was brought back for repair. The ~~other~~ second trap was re-baited and redeployed. This trap will be retrieved during the scheduled sampling

10:10 Field team departs Nānākuli for Mākua.

1033 Tt arrives at Makua beach. Mākama Mākua not present

1040 Tt arrives at Range Control to check in and sign out radio and gate keys

1100 ~~Tt~~ Field team returns to North Muliwai at Mākua ~~beach~~ to retrieve ~~crab nets~~ minnow traps. Traps contained mosquito fish + akupa

1125 Team relocates to south muliwai and deploys traps and nets near the bridge

1139 Traps are deployed in south muliwai

1150 Last trap deployed in South muliwai

1230 OI returns to muliwai to see if prawns or crab can be caught by scoop net.

1250 Broken minnow trap repaired and deployed in South muliwai

~~1340~~ 1338 Rock crab caught from south muliwai,

1356 Trap on west side of bridge retrieved. Trap contained mosquito fish.

430 Traps and nets checked. One rock crab caught. Samples are processed. OI will attempt to catch more crabs and prawns on the eastern side of the bridges. Traps and nets located on the western side of bridge are relocated.

545 Traps retrieved empty.

600 Field team leaves Makua Beach to return gates keys and radio to Range control

10-9-09

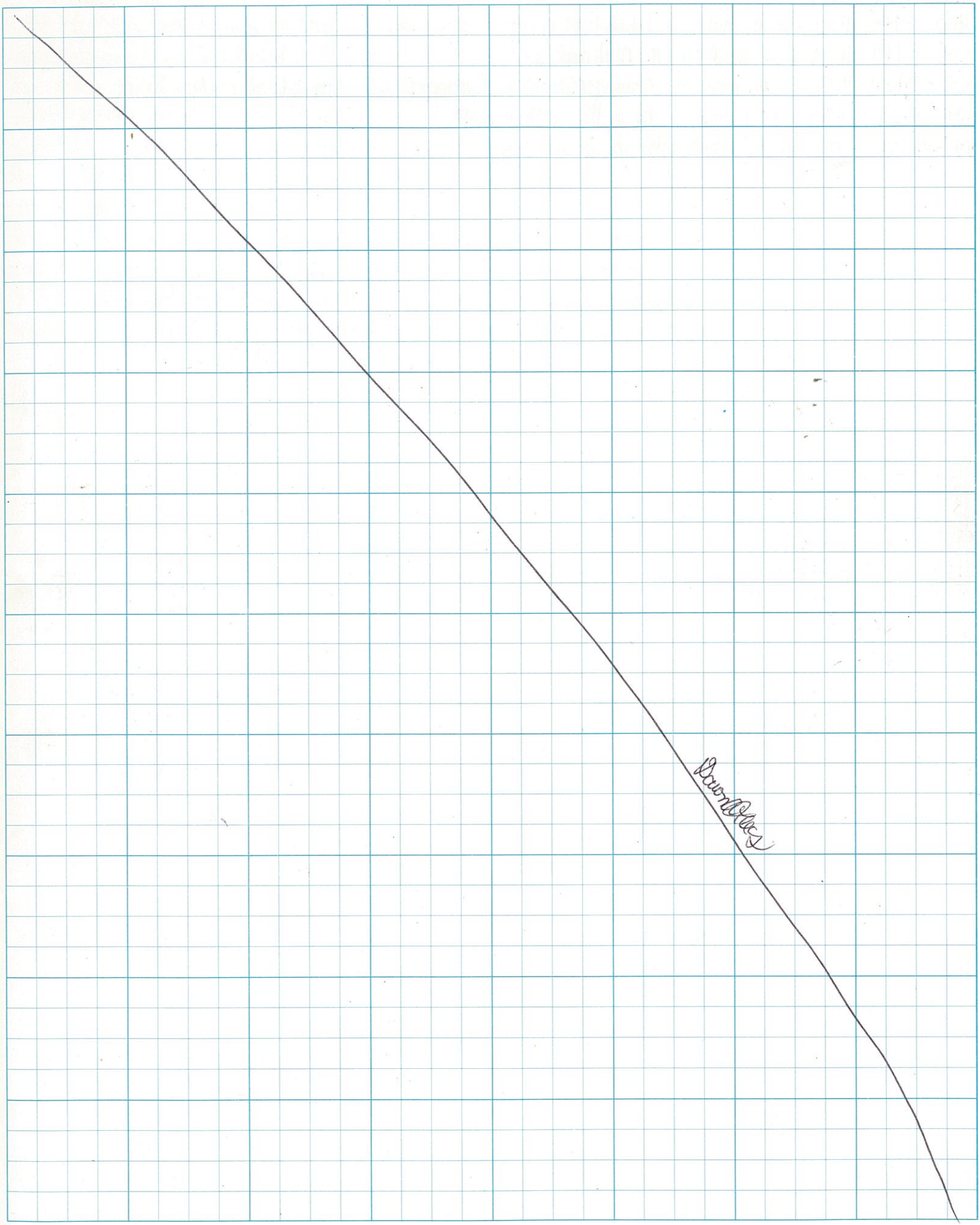

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Photo Log

10-9-08

108-3418	1134	South muliwai. Taken from bridge facing east.
108-3419	11:34	Crab caught from muliwai.
108-3420	11:40	South muliwai showing minnow trap deployed on western side of bridge. Facing West
108-3421	11:45	Two prawns caught in the south muliwai.
108-3422	1337	Rock crab caught in south muliwai.

Field Record: Makua Shellfish Study						
Sample Processor	Maren Anderson					
Data Recorder	Dawn A. Lucas					
Additional Personnel and Duties						
Environmental Conditions	See field notes					
Date	Time	Location	Species	Length/Width (cm)	Mass (g)	Composite ID
10-9-09	11:34	MSM	PACMIN	3.3	29	MSM-01
				3.2	27	-
				3.0	19	
10-9-09	11:45	MSM		8.4/4.0	14	MSM-02
				6.9/3.2	5	

Mākua → Nānākuli 10.10.08

1010 Tetra Tech team arrives on site. Susan Carstenn, Dawn Lieces, Maren Anderson
1025 Minnow traps are baited with salmon bones and deployed in South muliwai. (2 square) traps and one cylinder trap is used. Traps were deployed at 10:30, 1035, 1037
1043 Dip nets are used in the muliwai to catch prawns
1045 Environmental Conditions. Sunny with clouds overhead. Light winds from north east and clouds overhead Temperature is approximately 85°F. Waters are flat.
1130 Traps are retrieved empty
1147 Tetra Tech team packs up equipment and leaves site for Nānākuli.
1210 TT team arrives at Nānākuli beach to retrieve trap left over night
1220 Trap removed from Nānākuli muliwai was smashed open and empty.
1225 TT team cleans equipment and prepares final samples for shipment.
1310 TT team leaves Nanākuli Beach

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