

MONDAY August 21

210 screen & Kerry did drop today
↳ threw out ~ 4 million larvae

Hubs: last 3 days (including today) fed.

Came in at 3pm - Hub1 flour = ~5

Drop
105 um ~ 200 ml H₂O ~ 400L 10, 10, 3 - dead
↳ 25,000 LARVAE ~ 5 alive
125 um 600 ml H₂O & 68
↳ 105,000 LARVAE ~ 7 alive
180 um 0.01

5 Liters

500 ml

1 ml = 1000 μ l
1000 ml = 1,000,000

125,000 x 10 = 1.25 million

August 23

AM Hentzer Empty - -fl = 1 (likely no food yesterday)

1 Filter: signs of ALGAE

Larvae condensed to 4 Hubs - screened on 105

Estimated 120,000 total larvae, swimming w/ algae in gut
2L total stock, added 500 mL to each of 4 Hubs
~ 30,000 larvae per Hub @ 0945

SPAWN Notes

August 23

- Day 0 = no food
- Day 1 = 5
- Day 2 = 10
- Day 3-8 = low teens
- Day 28 = low twenties
- later maybe upto 30

Eggs go into 26°

WPO
- 20ml filter
Hach

Target 8.25

at 8.09

no good

26° 8.32

Added lige
1 ml in 5 gallon

x MBP A x WILD

220 DIP

2 females

female

1 male

Eggs - teardrop
ok
Anguim junk

wilds were at 11°

Three females in dish - whole body

Ziploc bag → 70%

20um - eggs caught

goes into red bucket with about 2 gallon
w/ special water

2/10 million eggs

Protocol for D₀

MESH:

- 105 um
- 70 um
- 60 um
- 40 um

Spawning

Female

Male

Incub

Re

A

Scale: 1 square = _____

Scale: 1 square = _____

Protocol for Day 3 Sieve & clean:

MESH:

- [105 μm] \rightarrow discard, debris
- [70 μm] \rightarrow keep
- [60 μm] \rightarrow keep
- [40 μm] \rightarrow discard, small larvae (keep if you want!)

Spawning:

Female \rightarrow tissue / gametes in bag (avoid guts)

Male \rightarrow poke holes in gonads, milk out sperm

Frequently stir eggs once clean
Pour through 70 μm screen onto 20 μm
Eggs on 20

Pass sperm through 20 μm into bowl.
Avoid over concentrated sperm, aim for light milky color

Added 10 μL sperm to red buckets of eggs

Once added, stir \sim 10 min continuously

Cleavage @ 45 min

Fertilize @ $< 26^\circ\text{C}$ & $> 25^\circ\text{C}$

DAY 3 screen - SAT 100
60
70

August 24 Hudls

eggs & larvae

* WTB pumps off 15 hr last night

Food (meter pump at 33; tank empty)

Flour - 1

Algae header = 76 full at noon
about 10 liters from bag

metered pump set at 30 → FI ~ 10

eggs @ 25° 1pm

larvae @ 26.2 1pm

larvae ~ 14 set at 30 o/n

eggs ~ 8

August 25

Algae header 1/2 full

FI = 87 ↓

eggs ~ 9

larvae 13

12

14

8

BAM

Temp
24.8

26.5 1 input
27.0 2 inputs

Increasing header to 30°
increasing flow eggs

Scale: 1 square =

Aug 25

Hudls

Need tho
is reduced

10 am LARVAE
Eggs

Decrease Header

tho - 1°

Egg 12,

larvae 12

Going to

Eggs off

12:20 Food ↑
back do

kept

Scale: 1 square =

Aug 25 continued Egg Day 02

Hm F to D₀

Hindsight
Need the bath if flow
is reduced

LARV⁵ DAY

✓
part left

Notes ES

10 am LARVA 27°
Eggs 27°

location to gene

binding. seq
- Fort str.

Decrease Header Temp 29°

motif binding

H₂O - 12

Egg 12, 11, 10, 11, 10, 9

Larve 12, 10, 11, 12

1) Co express
Aish
Annotn

Going to Drop eggs DAY 02

105 - debris
10
60
40

— Algae
—
— nothing ovals Algae
— lots ovals

Eggs off food while down

12:20 Food ↑ 75 (from 30) — 12:50 - F1 = 30
back down to 30 pump

Kept 70, 60, 40 filters → into 3 Huds

Aug 25 continued

13:00 filled Algae header w/ 8.5 litres DAW

Header Ready = 89

Aug 27

Algae header Pull - f = 73

Fluorescent ~ 10 ltr only

LARVAE 21D - dens ~ 10 / 4Due ~ 2 alae
→ 1/2 day 150 10, 17, 45 250ml
" 105 -

lots of empty shells

600 few shells - oval green
700 "
1050 - "

Went 1 hour LARVA
1 hour "eggs"

Dump @ 250

August 28

Kerry Filled Algae (empty in AM) sprayed out

"Egg" hndl = 80!

LARVAE hndl = 19

empty Trip Out = 39

11:00 arrival

S = stress
C = control

11:30 → 5:18.5 → C: 17.1

12:00 5:19.6 C: 17.1

October 2

Blue missing tag
Black Tag

temp logger w/ blue tag

Pink Tag

Yellow Tag

	control	stress	control	stress	control	stress
#1	65 mm	45 mm	64 mm	59 mm	72 mm	75 mm
	56 mm	42 mm	44 mm	51 mm	61 mm	53 mm
	44 mm	76 mm	53 mm	43 mm	60 mm	51 mm
	45 mm	60 mm	42 mm	52 mm	66 mm	45 mm
	48 mm	50 mm	65 mm	44 mm	75 mm	69 mm
	41 mm	41 mm	59 mm	45 mm	68 mm	67 mm
	40 mm	49 mm	48 mm	61 mm	75 mm	70 mm
	56 mm	49 mm	49 mm	50 mm	67 mm	47 mm
	48 mm	48 mm	42 mm	33 mm	55 mm	53 mm
	55 mm	40 mm	67 mm	40 mm	65 mm	78 mm
	55 mm	55 mm	41 mm	54 mm	63 mm	73 mm
	41 mm	35 mm	45 mm	59 mm	66 mm	40 mm
	42 mm	76 mm	46 mm	46 mm	59 mm	55 mm
14	49 mm	54 mm	43 mm	37 mm	54 mm	57 mm
#15	49 mm	57 mm	57 mm	63 mm	66 mm	53 mm

Orange Tag

TOAD Tag

BIRD Tag

	control	stress	control	stress	control	stress
	66 mm	43 mm	61 mm	67 mm	73 mm	34 mm
	63 mm	50 mm	48 mm	56 mm	45 mm	32 mm
	61 mm	50 mm	54 mm	46 mm	51 mm	31 mm
	67 mm	56 mm	60 mm	57 mm	50 mm	29 mm
	69 mm	56 mm	57 mm	54 mm	43 mm	54 mm
	47 mm	45 mm	71 mm	51 mm	44 mm	34 mm
	59 mm	51 mm	70 mm	51 mm	70 mm	34 mm
	31 mm	50 mm	35 mm	69 mm	46 mm	62 mm
	46 mm	40 mm	70 mm	63 mm	37 mm	31 mm
	39 mm	60 mm	46 mm	66 mm	48 mm	41 mm
	58 mm	49 mm	53 mm	71 mm	56 mm	54 mm
	55 mm	48 mm	40 mm	59 mm	46 mm	31 mm
	48 mm	61 mm	45 mm	61 mm	50 mm	53 mm
	39 mm	68 mm	63 mm	65 mm	52 mm	50 mm
#15	40 mm	45 mm	60 mm	53 mm	55 mm	55 mm

12:30 → S: 20.6 → C: 17.1
 1:00 → S: 22.8 → C: 17.1

CAT BAG DONE

October 2nd cont.

1:30 → S: 22.6

2:00 24°
 2:30 S: 24.1

Cat Tag

Dog Tag

control	stress	control	stress
80mm	85mm	70mm	60mm
74mm	*96mm	45mm	62mm
82mm	*85mm	59mm	63mm
61mm	97mm	60mm	77mm
73mm	71mm	79mm	49mm
93mm	*91mm	73mm	40mm
101mm	89mm	56mm	53mm
96mm	90mm	62mm	55mm
71mm	*96mm	62mm	40mm
86mm	*95mm	44mm	65mm
88mm		65mm	50mm
67mm	only ten	56mm	55mm
80mm	*joined	56mm	60mm
69mm	together	60mm	42mm
#15 77mm	w/ another	59mm	57mm

"Tank 3" temp logger was on PINK Bag

"Tank 4" + "Putnam" temp logger was on DOG Bag

Scale: 1 square = _____

Juven.

CONTROL

35	35	29
32	35	27
26	30	36
35	31	28
35	39	30
30	32	33
30	31	36
20	32	26
32	34	36
32	43	37
29	37	35
31	34	29
37	29	34
32	30	39
38	35	33

P2 | T2 | P5

TREATMEN

P2	T2	P5
41mm	31	25
30mm	37	31
31mm	34	31
33mm	49	33
34mm	37	33
34mm	35	44
30mm	34	28
22mm	33	33
35mm	36	55
34mm	29	39
30mm	40	30
32mm	26	23
46mm	28	40
36mm	39	26
34mm	31	30

Scale: 1 square = _____

Juveniles mix with / m.B.P

CONTROL

35	35	29	34
32	35	27	35
26	30	36	33
35	31	28	36
35	39	30	44
30	32	33	33
30	31	36	38
30	32	26	31
32	34	36	35
32	43	37	37
29	37	35	37
31	34	29	29
37	29	34	26
32	30	39	32
38	35	33	33
P2	T2	P5	H1

TREATMENT

P2	T2	P5	H1
41 mm	31	25	35
30 mm	37	31	32
31 mm	34	31	30
33 mm	49	33	29
34 mm	37	33	29
34 mm	35	44	31
30 mm	34	28	32
22 mm	33	33	46
35 mm	36	55	26
34 mm	29	39	34
30 mm	40	30	34
32 mm	26	23	39
46 mm	28	40	28
36 mm	39	26	30
34 mm	31	30	26

October 4th

Heath trays outside = 13.1°C

Upwellers outside = 14.4°C

Fluorometer = direct feeding is 20
Tote reading is ~3

11:20 am → silos reading 12

~~12~~

125 mL into 1000 mL reads 50

125 mL into 1000 mL reads 53

$$1000 \div 125 = 8$$

$$8 \times 50 = \boxed{400}$$