



HSWRI Update



Mariana M. Kawakami Ruairi MacNamara

Release Results 2023



SITE	Total # Transferred	Released	Avg WT (g)	Biomass (kg)	8" equivalent
Ocean Institute	1,390	250	108	27	386
SWYC	1,524	1,449	120	173	2,475
Marina del Rey	3,864	3,413	105	350	5,000
Channel Islands	10,252	7,209	116	836	11,946
Dana Point	1,184	1,036	118	122	1,744
Newport	2,716	2,367	116	248	3,542
Huntington Harbor	500	489	181	89	1,265
Catalina HSWRI	13,527	8,837	243	2,148	30,685
Agua Hedionda Lagoon*	4,628	4,628	199	920	13,142
Agua Hedionda Lagoon	14,869	14,595	207	3,018	43,114
TOTAL	54,454	44,273	151	7,931	113,299

^{*}Direct release



Release Plan for 2024

Site	Total # Transferred Planned Release 20		Avg WT (g)	Biomass (kg)	8" Eq. (#)
Agua Hedionda	11,587	11,560	100	1,156	16,514
Catalina	15,112	15,082	300	4,524	64,628
Channel Islands	8,294	4,267	141	602	8,594
Dana Point	1,425	1,412	96	136	1,936
Huntington	693	692	100	69	988
Marina del Rey	3,518	3,482	132	449	6,414
Newport	2,565	2,442	111	271	3,872
SWYC	1,995	1,890	84	159	2,268
Ocean Institute	1,864	1,686	103	173	2,475
	47,053	42,513	130	7,539	107,702

Catalina Transport - March 2024











Catalina - Pens Repair









WSB Broodstock







92 Total Broodstock Fish

B1

Empty (being refurbished)

B2

Females = 13 Males = 13

B3

B4

Empty

B5

Females = ?
Males = 7

Unknown = 32

2024 Broodstock Plan



Growth and Health Assessment – all tanks

New breeders

- No temp control for quarantine tanks outside of the hatchery (quarantine in B5)
- Broodstock collection starting end of May
- Transport to the hatchery July



Broodstock Photothermal Regime & Transitions (2024)								
	В	32	B3		B4		B5	
Date	Temp	Day	Temp	Day	Temp	Day	Temp	Day
1/3/2024	13.5	10	18	14	14	11	13.5	10
1/10/2024	13.5	10	18	14	15	12	13.5	10
1/17/2024	13.5	10	18	14	15	12	13.5	10
1/24/2024	13.5	10	18	14	16	13	13.5	10
1/31/2024	13.5	10	18	14	16	13	13.5	10
2/7/2024	13.5	10	18	14	17	14	13.5	10
2/14/2024	13.5	10	18	14	17	14	13.5	10
2/21/2024	13.5	10	18	14	18	14	13.5	10
2/28/2024	13.5	10	18	14	18	14	13.5	10
3/6/2024	13.5	10	18	14	18	14	13.5	10
3/13/2024	13.5	10	18	14	18	14	13.5	10
3/20/2024	14	11	18	14	18	14	13.5	10
3/27/2024	14	11	18	14	18	14	13.5	10
4/3/2024	15	12	17	14	17	14	13.5	10
4/10/2024	15	12	17	14	17	14	14	11
4/17/2024	15	12	16	13	move B4 fish into B3 (then follow the same photop.) 15 15 16 16		15	12
4/24/2024	16	13	16	13			12	
5/1/2024	16	13	15	12			13	
5/8/2024	17	14	15	12			16	13
5/15/2024	17	14	14	11			17	14
5/22/2024	18	14	14	11			17	14

Head collection summary



Category	Heads scanned	CWT	%
Recreational	272	5	1.8
Commercial - US	629	1	0.2
Commercial - MX	119	0	0
Total	1020	6	0.6

Table with Capture information

Date	TL	WT	Age	Liberty	Site
	(mm)	(kg)	(y)	(months)	
06/01/23	896	5.6	6.7	73	Channel Islands?
05/24/23	928	6.3	6.4	70	Channel Islands
06/15/23	821	4.4	6.5	71	Santa Rosa Is.
06/21/23	961	7.0	5.6	59	Santa Cruz Is.
07/06/23	728	3.1	3.7	39	Santa Cruz Is.
06/27/23	1120	14.1	8.3	97	DFW Block #685

Table with Release information

Date	Site
05/22/17	Agua Hedionda
08/09/17	C.I.H.
08/09/17	C.I.H.
08/14/18	Agua Hedionda
05/01/20	Hatchery (direct)
09/28/15	Agua Hedionda

NOAA S-K project update Sept 2023 - Aug 2025



- All WSB heads scanned for CWTs, measured, and archived/frozen
- Tissue samples being genotyped (N = 790) SCDNR
- Subsample of WSB being aged (N = 400) HSWRI
- Baseline otolith stable isotope values being determined for cultured juveniles / adult recaptures / adult wild – UT
- Fin clip kits (N = 150) distributed to anglers, spearfishers, and CPFV captains in Southern and Central/Northern CA

Production Status

HUBBS SEAWORLD RESEARCH INSTITUTE

- Challenges
 - Inconsistent spawning
 - Artemia disinfection





Improvements







Date: October 2, 2023

Hubbs SeaWorld Research Institute

% Mariana Kawakami

Subject: Fall 2023 Grant Cycle Award

Dear Mariana.

We are pleased to inform you that The JEM Project will issue a grant award in the amount of \$29,540.00 to Hubbs SeaWorld Research Institute. It is our intention for this funding to be used for the self-cleaning tank, internship stipend for a woman in aquaculture, and other indirect costs, as outlined in the grant application. We are very happy to be part of this project and look forward to seeing photos and/or metrics from its progress.

Additionally, we require a donation acknowledgement to be emailed to grants@thejemproject.org by January 31, 2024. The letter should include the following information:

- Name and logo of your organization
- Date of grant award
- Funding amount (\$29,540.00)
- Wording along the lines of "there were no goods or services provided as part of this donation"

On behalf of the board and staff of The JEM Project, please know that we are pleased to support the important work you are doing. We wish you much success in your efforts as you undertake the responsibilities of this grant.

Yours sincerely,

Rachel Shocket

Seabass in the Classroom







- Six schools participated Fall 2023
 - Students direct participation: >300
 - Fish released: 233
- Spring 2024 six schools (Sycamore Middle School new)
 - Approx. 250 fish to be released in May/June
 - >12 school hatchery tours
 - Planning to add two new schools in fall '24

Thank you!





Questions?