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OUR REFERENCE NO.
072076-1

July 22, 2026

Via email to blnr.testimony@hawaii.gov

Ryan Kanaka'ole
Chairperson, Board of Land and Natural Resources
Kalanimoku Building
1151 Punchbowl Street, 1st Floor
Honolulu, Hawai'i 96813

Re: BLNR Meeting July 24, 2026 - Testimony in Support of **Approving**
Agenda Items: (1) K-1.c. Motion for Reconsideration or Recission of
BLNR November 14, 2025 Decisions on Agenda Item K-1 (CDUA HA-
3981) and K-2 (CDUA HA-3982); and
(2) Agenda Items K.1.a & b Petitions for Contested Case Hearing (HA-26-
02 for CDUA HA-3981) and (HA-26-03 for CDUA HA-3982)

Dear Chair Kanaka'ole and Members of the Board of Land and Natural Resources ("**Board**"):

The Applicants, Mr. Ryan Pastorek, the sole member of Opunaha, LLC, and owner of Tax Map Key ("TMK") No. (3) 1-5-010: 026 ("**Parcel 026**"), and Ryan's father, Mr. Paul Pastorek, owner of TMK No. (3) 1-5-010: 027 ("**Parcel 027**"),¹ submit this testimony in support of **approving** Agenda Item K-1.c., Applicant's Motion for Reconsideration filed with the Board on November 21, 2025 ("**Motion**"). The Board's November 14, 2025 decision to deny Applicants' Conservation District Use Permit Applications ("**CDUAs**") were the subject of Agenda Items K-1 and K-2 at the November 14, 2025 Board Meeting ("**November Meeting**"). The Board's decisions to deny the CDUAs were arbitrary, capricious, and clearly erroneous based on the evidence in the record, as they were based on misrepresentations by OCCL regarding the size and number of single family residences ("**SFR**" or "**SFRs**") approved by the Board in the same area.

Under Hawai'i Administrative Rules ("**HAR**") § 13-1-39(a), the Board may reconsider a prior decision it made on the merits if the movant shows that: "(1) New information not previously available would affect the result; or (2) A substantial injustice would occur."

¹ Parcel 026 and Parcel 027 are collectively referred to herein as the "**Properties**".

As discussed herein, new information that directly impacts the Board's decisions on the CDUAs was presented through the Motion - namely, to correct misrepresentations made by Office of Conservation and Coastal Lands ("OCCL") staff at the November Meeting on the square footage of the approved SFRs of the surrounding properties and number of CDUPs issued, which directly and materially resulted in the Board's decisions to deny the CDUAs. Additionally, because the Applicants have been denied the ability to build SFRs that are compliant with HAR Title 13, Chapter 5 (the "**Conservation District Rules**") like other neighbors have been granted through the approval of similar CDUAs, a substantial injustice has occurred and will continue to occur if the Motion is denied.

The Board should grant the Motion and grant both CDUAs subject to the standard conditions in HAR § 13-5-42. Applicants are also agreeable to the conditions suggested by the November 14, 2025 Staff Recommendation on pages 8, 21, and 23 that would prevent future shoreline hardening, prohibiting the use of the SFRs as transient vacation rentals, and impeding lateral shoreline access.

Following the Board's decisions on November 14, 2025 to deny the CDUAs, Applicants made a timely verbal request for contested case hearings on Agenda Items K-1 and K-2, followed by the timely filing of the required written Petitions for Contested Case Hearing on November 21, 2025 (the "**Petitions**").

If the Motion is granted, Applicants will withdraw their petitions for contested case hearings (Agenda Item K.1.a). Should the Board decide to deny the Motion, Petitioners will proceed with the contested case proceedings, which OCCL has determined that Petitioners are entitled to. *See* Staff Recommendation for Agenda Item K.1.a. For that reason, Applicants request that the Board take up Agenda Item K.1.c. prior to hearing Agenda Items K.1.a. and b.

I. Discussion

Detailed background on the CDUAs, and the arguments supporting the Motion and the Petitions are contained in those documents, as well as the Applicants' written testimony dated November 12, 2025, all on file with the Board and OCCL.² This testimony highlights significant issues with the Staff Report for agenda items K.1.a. - c. and treatment of the CDUAs, including downplaying how the false information provided to the Board was the primary rationale in the denial of the CDUAs.

- A. Issue #1, False Information. It is disingenuous for the Staff Report on the Motion for Reconsideration to say that no new information was available when it was precisely the misinformation that OCCL presented at the November Meeting that led to the Board's denial of the CDUAs. The Motion provides the correct information to the Board on the approved Maximum Developable Area ("**MDA**") of the neighboring properties, which confirms that the SFRs proposed by the

² Courtesy electronic copies of the same are provided to the Board via this link: <https://www.sendthisfile.com/GeHWqFEAPNMEUVALMrtQHNTi>. The link will expire in 10 days (on August 1, 2026), but the original records are on file with OCCL and the Board.

CDUAs here are entirely "compatible with the locality and surrounding areas, appropriate to the physical conditions and capabilities of the specific parcel or parcels[.]" HAR § 13-5-30(c)(5).

The size of the proposed dwellings as compared to the neighboring parcels was the primary subject of the Board's discussion of the CDUAs at the November Meeting, and the stated reason for the denial. The below excerpts from the Board's discussion at the November Meeting with approximate time stamps from the video of the meeting, provide direct evidence of the foregoing reason for denial.³

1:54:28 Denise Iseri-Matsubara:

*"I have some clarifying questions ... It was said that it's mainly we're not prohibiting a residential dwelling unit on the property. It's just the size yet I'm hearing from the applicant that there are similar sizes of dwelling units in the area. Could we get clarity on that comment and verification?"*⁴

1:54:46 Michael Cain:

*"we identified five CDUPs that have been issued by the Board in the stretch between the two developed neighborhoods. Um the immediate neighbors are 3,705 square feet or developed area and 3,013. Um the other three further afield: 2,644, 3,847 and 3,868."*⁵

1:55:19 Denise Iseri-Matsubara:

"And that, the square footage that you are quoting me is the size of the dwelling unit or area? Square foot of the entire area?"

1:55:29 Michael Cain:

"It's maximum developed area. The way it's calculated in the conservation district is slightly different in the counties. . . MDA includes both floors and it includes pools or appurtenant structures. We don't count like water catchment tanks or driveways."

...

1:56:07 Denise Iseri-Matsubara:

*"and there was a statement made that there is another dwelling unit with related structures that are similar in size to what they're proposing?"*⁶

1:56:21 Michael Cain:

"I mean similar is relative. That's why I just read off" Denise Iseri-Matsubara: *"All that you had?"*
Michael Cain: *"yeah."* Denise Iseri-Matsubara: *"Okay."*

³ The video of the Board's November 14, 2025 meeting is available on DLNR's website at:
<https://www.youtube.com/watch?v=s0Iu5QfSlc0&list=PLDh6ZXzdUvQkHtqVoauOkfa26NfNLh2pK>.

⁴ Member Iseri-Matsubara establishes her focus on the size of the dwelling units versus the size of other dwelling units in the neighborhood with this line of questioning.

⁵ Mr. Cain reads five instead of a total of ten CDUPs between Hawaiian Paradise Park and Hawaiian Beaches, and he reads of the incorrect MDA approved by the Board, thus falsely representing to the Board that the neighborhood contains approved SFRs significantly smaller than what the Applicants are proposing in their CDUAs,

⁶ Member Iseri-Matsubara again focuses on neighboring properties and their relative size.

1:56:41 Denise Iseri-Matsubara:

"So that is what I am trying to reconcile in my mind. There is something similar in size and yet there's at least a thousand square feet difference in the proposal and what you're saying is in the area. So, I just wanted to get that clarity."

1:56:54 Michael Cain:

*"Yeah, I mean our position would be that these are significantly bigger, but we also admit that's subjective. 3,800 to 5,000 is a subjective decision as to whether that is significant or not."*⁷

2:50:20 Dawn Chang:

"It's not that we oppose construction of a single family dwelling in this area. He's entitled to that. [You're] both of them are entitled. It is the size of the dwelling. That that it is not consistent but it is not in alignment and I do believe it would change the character of that area. If they were to submit a new CDUA application for a smaller dwelling, I would be more than willing to entertain that. But based upon this, the consolidation and the resubdivision, the two homes almost look like they are side by side, which makes it look very large. The advantage of consolidation is that the large vegetation, vegetated area on one lot um they give you know your lot size um they wouldn't necessarily and I know that they have plans for landscaping but that would not necessarily be cleared so for those kinds of reasons I will be voting against the motion[.]"

The above evidence shows that the Board acted erroneously based on the false information provided by OCCL, and acted arbitrarily based on the "looks" of the plans provided with the CDUAs, stating that the Board would entertain something "smaller" when the rules allow an SFR with an MDA up to 5,000 square feet ("s.f."). The Applicant's CDUAs were within the size limitations allowed by the rules and would not be out of character with the neighborhood and the Board-approved similarly sized SFRs in the neighborhood.

For all of the foregoing reasons, it is clear that the Board's decision to deny the CDUAs was arbitrary, capricious, and clearly erroneous based on the evidence in the record, and the Motion should be granted.

- B. Issue #2, No Ability to Review in Advance. The Board was not provided in the Staff Report for Agenda Items K-1 and K-2 copies of the actual CDUAs prior to the November Meeting and therefore could not have reviewed the applications prior to making its decisions to deny the CDUAs. Accordingly, the Board was more likely to rely on OCCL's negative recommendation and false information provided at the November Meeting. The CDUAs are also not included in the Staff Report for the July 24, 2025 agenda items.

⁷ Mr. Cain validates the false information by drawing a conclusion that the neighboring properties were all approved at 3,800 s.f. or less and the Applicants' CDUAs are both 5,000 s.f., when the MDA proposed in the CDUAs are 4,739 s.f. and 4,984 square feet respectively (though the living area of Parcel 27 is calculated at only 2,750 square feet). These MDAs are in the same general range as at least six of the ten CDUPs the Applicants identified in this section of Government Beach Road which are approved for over 4,000 s.f. MDA, two of which were given extensions to complete construction earlier in 2025.

C. Issue #3, The Applicants were denied due process.

- i. OCCL gave a negative recommendation on the CDUAs. The Applicants have a right to a full and fair hearing.
- ii. The CDUAs were not agendized by OCCL until the November 14, 2025 date, four days prior to the statutory deadline for an automatic decision (November 18, 2025), which did not allow the Board to give the CDUAs due consideration or to allow for a continued meeting if the Board needed more time to ask the Applicants questions, effectively giving the Board the only option of denying the CDUAs if they had *any* questions about the proposals.
- iii. The CDUAs were placed on the agenda with other controversial matters. Applicants were asked to limit their presentation to just 5 minutes, despite the need to rebut a negative recommendation from OCCL. Even though the Board did provide some additional time for Applicants to present, Applicants were rushed both by the Board and members of the public in the meeting room, and the Board could not provide full consideration to the requests.
- iv. By the time this meeting takes place, it will have been more than 8 months since the Petitions were filed before the Motion and Petitions were agendized with little explanation from OCCL as to the delay (responses to multiple inquiries from Applicants' representatives to OCCL indicated that the matters were not agendized because OCCL had to prepare a staff report on the Motion and Petitions, had to consult with the Attorney General's office, while the undersigned contacted the Attorneys General's office, who were told that Applicants needed to contact OCCL directly. That is an 8-month delay from the time OCCL was challenged on its misstatements to the Board, yet OCCL did not bring the material misrepresentation to the Board's attention. Even after the substantial delay, the Staff Report for these agenda items lacks any substance or legal support for why the delay took place or why the Motion should be denied.

D. Issue #4, Rationale Unrelated to the Rules. The Board based its decisions on factors that are *not* in the Conservation District Rules, including commenting that Applicants are not from Hawai'i and treating the applications as a single application.

- i. OCCL is treating the *two separate CDUAs* for SFRs as a single application because the owners of the adjoining parcels are family members.

"Lastly, staff expressed broader concerns that, when both applications for Parcels 026 and 027 are viewed together, the combined proposal may

functionally resemble a multi-dwelling estate on approximately 10.45 acres, raising questions as to whether the project or projects are consistent with the purpose and intent of the Conservation District and HAR Chapter 13-5." Nov. 14, 2025 Staff Report at 12.

"Because CDUAs HA-3981 and HA-3982 were processed together during environmental review and the permit application process, involve applicants who are members of the same family, and raise substantially identical factual and legal issues, staff further recommends that the Board consolidate the petitions into a single contested case proceeding. Staff also recommends that the Board delegate authority to the Chairperson to select and appoint a hearing officer to conduct the contested case hearing." July 24, 2026 Staff Report at 2.

There is nothing in the Conservation District Rules that prohibits members of the same family from owning neighboring properties or living in neighboring residences. In fact, this is common in Hawai'i , where 250,000 state residents or nearly 8% of the population live in multigenerational households
(<https://www.census.gov/content/dam/Census/library/working-papers/2013/acs/lofquist-01.pdf>).

While a portion of the applications involve a consolidation and resubdivision of the two existing parcels, the SFRs are covered by two separate applications. The Final Environmental Assessment for the SFRs does include an alternative where only one SFR is approved on one of the parcels. Neither OCCL nor the Board gave any consideration to that alternative, but instead in proforma manner, denied both CDUAs wholesale. Each SFR proposed under the CDUAs will be developed on its own legal lot of record and will respect all zoning setbacks and lot lines.

Former Board Chairperson Dawn Chang confirmed that each Applicant is entitled to develop a SFR:

Dawn Chang at 2:50:20 "It's not that we oppose construction of a single family dwelling in this area. He's entitled to that. [You're] both of them are entitled . . . and I do believe it would change the character of that area[.]"

- ii. Comments were made by the Chairperson that the Applicants "don't live here". Video at 2:58:59. Again, this is not a criterion in the Conservation District Rules and making a decision based on the Applicants' domicile not currently being in Hawai'i is not a legitimate reason for denial.

Notwithstanding that the Applicants' are not yet able to live in Hawai'i because the CDUAs have not been approved, Applicants have taken steps to become a part of the community. Ryan was integral to the development of the local

neighborhood watch which includes Parcel 026 and Parcel 027, facilitated by former Hawai'i County police officer Duane Waipa. Ryan has been and remains active in organizing and participating in Beach Road cleanup efforts, and he assists with numerous neighborhood projects. Despite not yet having a home on the island, the Applicants continue to invest in life in Hawai'i, are good stewards of the Properties and surrounding areas, and have established themselves within the community, as was shown at the November Meeting.

- iii. Board members and OCCL Administrator suggested some ethereal/nebulous "smaller" homes without giving any guidance as to what is acceptable, notwithstanding the MDA in the rules being 5,000 s.f. for parcels that are 1 acre or greater. The Properties here (assuming consolidation and resubdivision as requested in the CDUAs are approved) are 4.048 acres (Parcel 026) and 6.402 acres (Parcel 027) in size.

While the Board has discretion in considering the Conservation District criteria set forth in HAR § 13-5-30(c), the exercise of unbridled discretion based on an arbitrary guideline has been struck down by the Circuit Court of the Ninth Circuit. In *Spirit of Aloha Temple v. County of Maui*, the Maui Planning Commission ("MPC") denied a special use permit to hold religious services and other events on agriculturally zoned property. *See* 49 F.4th 1180, 1184 (9th Cir. 2022). The basis for the MPC decision was HAR § 15-15-95(c)(2), that the use "would adversely affect the surrounding properties[.]" *Id.* at 1186. The Ninth Circuit Court recognized that "[w]hile permitting guidelines need not eliminate all official discretion, they must be sufficiently specific and objective so as to effectively place some 'limits on the authority of . . . officials to deny a permit.'" *Id.* at 1191 (citations omitted).

OCCL Administrator (1:25:06)

" . . . in terms of our recommendations of denial its . . . we recognize that single family residences are an identified land use in this region and we have recommended approval in these off-grid areas. In this case ***we just feel*** it's *not to scale*. It's *too close to 5,000 square foot* single family homes: a two bedroom and a three-bedroom. We thought these are more luxury developments that weren't really appropriate for this cultural landscape. So we are not recommending denial of all uses, we just feel that this plan we don't feel is appropriate for the conservation district in this rural area."

1:56:54 Michael Cain: "Yeah, I mean our position would be that these are significantly bigger, ***but we also admit that's subjective. 3,800 to 5,000 is a subjective decision as to whether that is significant or not.***"

Once again, the foregoing excerpts demonstrate OCCL's subjective decision about what it feels is appropriate without analyzing the facts of the neighborhood, other CDUPs and the Conservation District Rules themselves. The irony here is that the

rule itself provides an *objective* standard: 5,000 s.f. The SFRs proposed under the CDUAs are objectively and clearly under the 5,000 s.f. maximum in the rules. Furthermore, as shown in the table below, the proposed SFRs under Applicants' CDUAs are absolutely to "scale" considering the homes on neighboring properties. Contrary to Mr. Cain's previous testimony, there are at least **ten (10)** CDUPs which have been issued for SFRs in the stretch between the Hawaiian Paradise Park ("**HPP**") and Hawaiian Beach subdivisions.

Table 1

	TMK No.	Size	CDUP No.	Date Approved	MDA Per Conservation District Rules in Effect on Date Approved (in sq. ft.)	Approved Development Area
1.	(3) 1-5-010-009	13.43 acres	HA-3868	Oct. 9, 2020 (2nd time extension approved March 14, 2025) ⁸	5,000	4,695 SFR and 680 s.f. Farm/utility shed ⁹
2.	(3) 1-5-010-025	5.43 acres	HA-3482	Nov. 25, 2008	5,000	4,154 ¹⁰ (originally HA-3013 approved on May 11, 2001 for 3,700 s.f.)
3.	(3) 1-5-010-028	3.5 acres	HA-3705	Aug. 22, 2014	5,000	4,332 ¹¹ as of February 16, 2022, SFR and accessory uses (originally approved 3,371 s.f.)
4.	(3) 1-5-010-029	3.6 acres	HA-2644	Sept. 10, 1993	No MDA limit	2,600
5.	(3) 1-5-010-031	8.75 acres	HA-3847	Nov. 8, 2019 (3rd time extension approved Sept. 12, 2025) ¹²	5,000	(originally approved 4,301) currently 3,592 Developable Area and a 769 sq. ft. farm shed after alterations and additions ¹³
6.	(3) 1-5-009-035	2.181 acres	HA-3676	Dec. 13, 2013 ¹⁴	5,000	4,470 ¹⁵

⁸ <https://dlnr.hawaii.gov/wp-content/uploads/2025/05/Minutes-250314.pdf> (Item K-1).

⁹ <https://dlnr.hawaii.gov/wp-content/uploads/2025/03/K-1.pdf> (page 1).

¹⁰ See Exhibit A to Motion (CDUP HA-3482 and Staff Submittal at 6).

¹¹ See Exhibit B to Motion (After the Fact Site Plan Approval).

¹² <https://dlnr.hawaii.gov/wp-content/uploads/2025/09/K-1.pdf>

¹³ *Id.* at 15.

¹⁴ <https://dlnr.hawaii.gov/wp-content/uploads/2020/11/131213-minutes.pdf> (Item K-5).

¹⁵ <https://files.hawaii.gov/dlnr/meeting/submittals/131213/K-5.pdf> (page 3).

7.	(3) 1-5-009-036	1.6310 acres	HA- 3/15/82- 1466	On or about Aug. 13, 1982	No MDA limit	2,200 s.f. ¹⁶ (COH RPT drawing shows 2,662 s.f. including "porch unceiled shed roof")
8.	(3) 1-5-009-040	10.005 acres	HA-3233	Oct. 28, 2005	5,000	4,996 (approved for 5,000) SFR approx. 2,849 s.f, covered lanais (594.5 s.f.), arcade, breezeway (approx. 352.5 s.f.), utility, storage area (approx. 300.68 s.f.) and 900 s.f. pool ¹⁷
9.	(3) 1-5-009-053	6.91 acres	HA-3851	Dec. 13, 2019 ¹⁸	5,000	3,418 (2,560 SFR, 858 carport and utility shed ¹⁹)
10.	(3) 1-5-009-055	6.79 acres	HA-3797	Oct. 13, 2017 ²⁰	5,000	4,922²¹
<i>Applicants' Proposal</i>						
11.	(3) 1-5-010-026	4.048 acres	HA-3981	N/A	5,000	MDA 4,739 4,010 s.f. SFR
12.	(3) 1-5-010-027	6.402 acres	HA-3982	N/A	5,000	MDA 4,984 s.f. 2,750 SFR + landscaping, pool, art studio

¹⁶ See Exhibit C to Motion (CDUA HA-3/15/82-1466, dated August 13, 1982).

¹⁷ See Exhibit D to Motion (Staff Recommendation) and Exhibit E to Motion CDUP HA-3233.

¹⁸ <https://dlnr.hawaii.gov/wp-content/uploads/2019/12/Agenda-191213-D.pdf> (Item K-1).

¹⁹ <https://dlnr.hawaii.gov/wp-content/uploads/2019/12/K-1.pdf> (p. 4)

²⁰ <https://dlnr.hawaii.gov/wp-content/uploads/2018/02/Minutes-171013.pdf> (pgs. 12-13)

²¹ <https://dlnr.hawaii.gov/wp-content/uploads/2017/10/K-1.pdf> (p. 4).

Figure 1
(Identifying Approved Developed Area and CDUP Nos.)

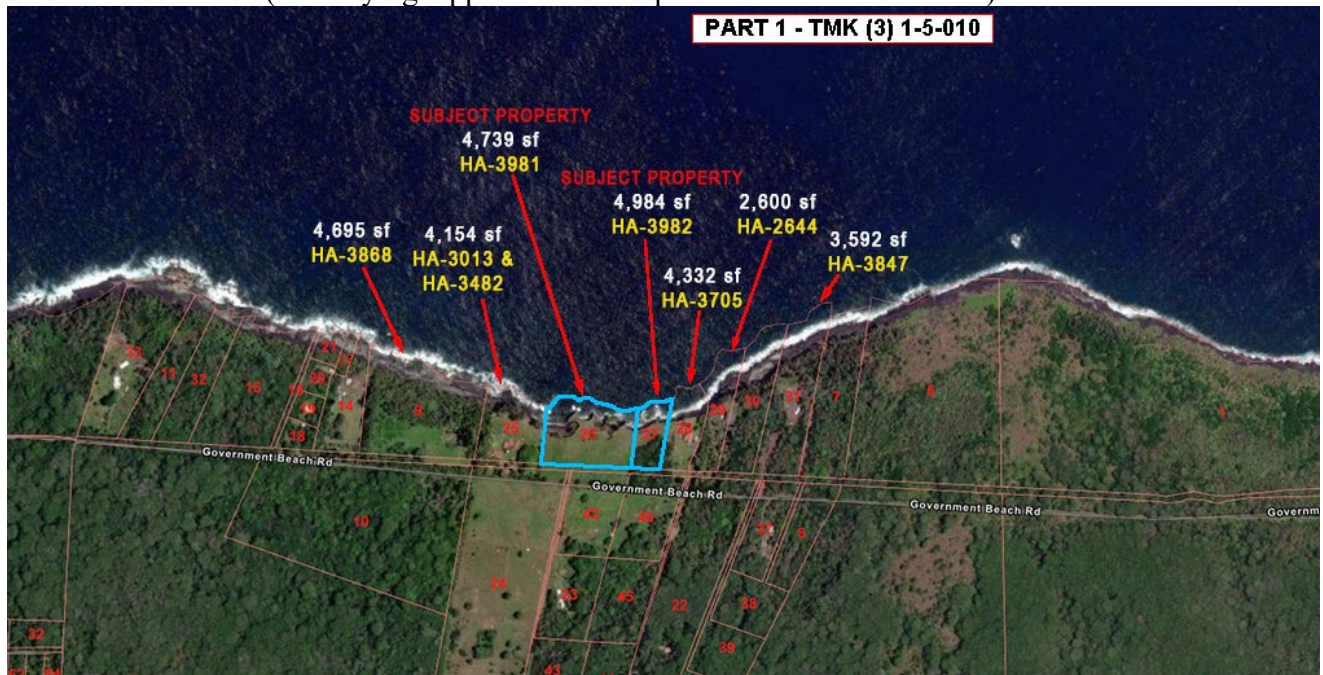


Figure 2
(Identifying Approved Developed Area and CDUP Nos.)



As shown on Figures 1 and 2 and demonstrated in Table 1, the proposed SFRs are clearly consistent with the surrounding area and the Board's past precedent. Denying the Motion and the CDUAs would be wholly inconsistent with the Board's past decisions, including recent decisions earlier in 2025, and approved SFRs in the area.

- E. Issue #5, Mischaracterizations and Omissions. There are several mischaracterizations or omissions in the November 14, 2025 Staff Report.
- i. The Staff Recommendation and some Board members made statements that the general area in which the Properties are located is "remote" and "rural". Denying the CDUAs for this reason was arbitrary and capricious and made in error. As the Applicants pointed out in their written testimony and presentation to the Board, and as shown on Table 1 and Figures 1-2 above, this characterization of the Properties is not accurate. In reality, as recognized by the County of Hawai‘i Planning Department in its recommendation to approve the Special Management Area permit for the SFRs on Parcels 026 and 027, "[t]he subject parcels are within an **established** residential community that [sic] both agricultural and residential uses, as well as the fully developed Hawaiian Paradies [sic] Park located north of the project site." (Emphasis added.).
 - ii. The Properties are located in the Puna District on the Island of Hawai‘i **between two large subdivisions**, about one (1) mile from HPP which consist of approximately 8,800 lots and a population nearing 15,000,²² making it one of the largest subdivisions in Hawai‘i, and the second largest private subdivision in the United States (<https://hppo.net/Activity%20Center/>) as well as one of the fastest growing areas of Hawaii (<https://www.homesnacks.com/fastest-growing-cities-in-hawaii/>), and just over two (2) miles from Hawaiian Beaches, which consists of approximately 1,300 lots with approximately 4,000 residents (https://en.wikipedia.org/wiki/Hawaiian_Beaches,_Hawaii). Furthermore, approximately 483 acres of the Department of Hawaiian Home Lands ("DHHL") parcel mauka of Government Beach Road, designated as Maku‘u Makai in DHHL's 2025 Maku‘u Regional Plan, is slated for kuleana homestead lots "where beneficiaries can lease unimproved, off-grid homestead lots[.]" Thus, more residential development is planned for this area and the SFRs proposed here will not be out of place.
 - iii. The proposed SFRs are in keeping with the character of the existing SFRs on either side of the Properties, and the large subdivisions within the surrounding area. In addition, the plans specifically situate the structures

²² COUNTY OF HAWAI‘I RESEARCH AND DEVELOPMENT, *Census Community Profiles*, available at <https://www.rd.hawaiicounty.gov/data-information/community-profiles> (last visited Nov. 10, 2025).

on the Properties to maintain visual viewpoints to the ocean from the roadway, which was done in concert with the neighbors.

- iv. The SFRs are not luxury estates. Parcel 26's plans are for a 3 bedroom, 3 bathroom structure, with a garage, and Parcel 27's plans are for a 2 bedroom, 2 bathroom structure, with a pool (other CDUPs allowed for pools) and a barn/workshop. Again, the size and project elements are consistent with those approved under CDUPs for neighboring properties and below the 5,000 s.f. MDA in the Conservation District Rules.
- v. Additionally, the Hawai'i County Council is currently considering Resolution No. 567-26, authorizing the acquisition by eminent domain of portions of two parcels approximately 1.5 miles down the road for the improvement and widening of Government Beach Road.

G. Issue #6, Unfounded Delays While Working on New Rules. While this Motion has been pending for 8 months under the current Conservation District Rules and not agendized for the Board's consideration, OCCL is actively proposing amendments to the Conservation District Rules that would significantly decrease the MDA for SFRs, from 5,000 s.f. to 3,500 s.f. for parcels that are 1 acre or greater in size. This is a drastic decrease, with absolutely no justification or proportionality consideration as to the proposed new limit of 3,500 s.f. for all properties 1 acre or greater in size (be it one acre or 20,000 acres). To the extent OCCL and the Board are trying to enforce a non-existent "smaller" MDA that is *not* in the current rule, such action is unlawful, arbitrary and capricious and any such enforcement is a substantial injustice.

Given the facts, a reasonable person might perceive that this is a concerted effort by OCCL to bend its rules and find a way to deny the CDUAs simply because of their subjective and arbitrary "feeling" that the proposed SFRs are too big and the Applicants do not currently live in Hawai'i.

II. Conclusion

In light of the foregoing, it is clear that new information not previously available to the Board would affect the result – (a) the MDAs for neighboring SFRs presented to the Board were wrong, and the Board based its denial on its mistaken belief that the Applicants' proposed SFRs were substantially larger in size, and therefore assumed the proposed SFRs would change the character of the neighborhood, neither of which is accurate, (b) the Board did not have the ability to review the applications in advance and relied on the OCCL Staff Report, (c) the Board's stated rationale to deny the CDUAs is not found in the Conservation District Rules, and (d) OCCL made inaccurate mischaracterizations and omissions regarding the neighborhood and the CDUAs themselves.

Simply put, the Board denied the CDUAs without any showing that the CDUAs do not comply with the criteria in the Conservation District Rules. The basis for denial was a "*feeling*" that the proposed SFRs were "too big" despite a clear showing that the proposed SFRs were (1)

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under the 5,000 s.f. MDA in the rules, and (2) similar in size to SFRs approved by the Board on neighboring properties.

With other CDUPs in the neighborhood being approved, yet the Applicants' CDUAs have been denied using the same rules, the Board has seemingly created a situation that favors some property owners over others. Given that the permits were denied based on these bases, a substantial injustice has absolutely occurred.

That injustice was exacerbated by an unwarranted and inappropriate 8 month delay for the Motion and Petitions to be heard by this Board while OCCL concurrently takes affirmative actions to drastically decrease the MDA through its pending rulemaking.

As set forth in detail in Applicants' November 12, 2025 testimony, the CDUAs satisfy each of the eight criteria set forth in HAR § 13-5-30(c). The Motion and therefore the CDUAs should be granted.

The Applicants appreciate the opportunity to submit this testimony in support of approving the Motion and ultimately CDUA HA-3981 and CDUA HA-3982 subject to the standard conditions set forth in HAR § 13-5-42. Applicants are also agreeable to the conditions suggested by the Staff Recommendation on pages 8, 21, and 23 that would prevent future shoreline hardening, prohibiting the use of the SFRs as transient vacation rentals, and impeding lateral shoreline access.

If the Motion is granted, Applicants will withdraw their petitions for contested case hearings (Agenda Item K.1.a). Should the Board decide to deny the Motion, Petitioners will proceed with the contested case proceedings, which OCCL has determined that Petitioners are entitled. *See* Staff Recommendation for Agenda Items K.1.a. For that reason, Applicants request that the Board take up Agenda Item K.1.c. prior to hearing Agenda Items K.1.a. and b.

Sincerely,

A handwritten signature in black ink, appearing to read "Onaona P. Thoene".

Onaona P. Thoene
Katherine A. Garson

[EXTERNAL] Testimony K 1.

From rtubbs@hawaii.rr.com <rtubbs@hawaii.rr.com>

Date Thu 7/23/2026 8:29 AM

To DLNR.BLNR.Testimony <blnr.testimony@hawaii.gov>

Informational Testimony K. 1.

By Ron Tubbs B.S., N.D.

Aloha BLNR board members.

The information below regarding the constitutionality of eliminating or discriminating against any one user group permit may or may not apply to agenda item K. 1. ; but it is very important information that must be shared. Thanks for your valuable time on this topic.

The Constitutionality Laws Regarding Ocean User Permits in Detail:

According to state, federal, and international laws, Undersea landscapes are to be shared, and individual user groups are not to be banned from their use. Rather, management and stewardship are the constitutional mandates of government.

We believe, based on the legal review below, that any ban bill, rules, or resolution by the government that targets any user group based on user conflict and not science is not management or stewardship.

An arbitrary and capricious decision is a ruling made without a rational basis, ignoring facts, or lacking a clear connection between the evidence and the choice. Courts use this standard to check if a government agency or lower court abused its power.

□ **Arbitrary:** A choice made by personal whim or preference instead of following fixed rules, logic, or fair law.

□ **Capricious:** A sudden, impulsive change of mind that has no steady motive, thought, or reason.

Legal Review, Hawaii Constitution

Protections for Native Hawaiians

The bill makes no carve-outs or provisions to protect native Hawaiians. The Hawai'i Constitution guarantees that the State will "protect all rights, customarily and traditionally exercised for subsistence, cultural and religious purposes and possessed by ahupua'a tenants who are descendants of native Hawaiians who inhabited the Hawaiian Islands prior to 1778" Hawai'i Const. Art. XII, § 7. Hawaiians have relied on the islands' near-shore fisheries for centuries, and a ban or shut down does not take into account the impacts that a

moratorium may have on native Hawaiian livelihood, culture, and way of life. Historically the aquarium fishery has been composed of nearly 10% of those with Hawaiian Ancestry.

Public Access to Fisheries

The bill also impermissibly restricts public access to fishing. Under the Hawaii Constitution, “[a]ll fisheries in the sea waters of the State . . . shall be free to the public, subject to . . . the right of the State to regulate the same” Hawai’i Const. Art. XI, § 6.

The 2 moratoriums would, over time, eliminate an entire fishery, completely denying public access. This goes far beyond mere “regulation” of fisheries and would therefore violate the Constitution.¹

Equal Protection and Due Process

The bill also raises significant concerns under the equal protection and due process clauses of the United States Constitution, which are designed to protect against exactly this kind of arbitrary, unsupported government action. Even assuming the bill would be subject to only rational-basis review (and setting aside, for now, the possibility that it would disproportionately impact Native Hawaiians), there appears to be no rational basis for the proposed law. In fact, DLNR filed comments objecting to the bill because there is no scientific basis for it. The supposed benefits have not been studied, and there is no evidence that the moratorium will do anything to advance the State’s purported interests. See, e.g., *Nehring v. Ariyoshi*, 443 F. Supp. 228, 239 (D. Haw. 1977) (concluding that there would be an equal protection violation under rational basis review where the State had not studied alleged environmental benefits and could produce no evidence to support their existence).

Dormant Commerce Clause

Res 26-159 and 26-160 if they support a ban bill also raises concerns under the Dormant Commerce Clause, which prohibits laws that unduly burden interstate commerce. The moratorium would severely disrupt the Interstate Aquarium Trade Supply Chain. If the bill halted Hawaiian aquarium fish supply, industry would go to other countries for supply, some of which may tolerate environmentally destructive fishing practices like cyanide fishing. As such, the bill may violate the dormant commerce clause because it would burden interstate commerce in a manner that is clearly excessive in light of the purported (and highly dubious) environmental benefits. See *Hughes v. Oklahoma*, 441 U.S. 322, 337 (1979) (A state cannot “force those outside the State to bear the full costs of ‘conserving’ the wild animals within its borders ..”).

Public Trust Doctrine and Takings

The bill could also create legal complications related to the public trust doctrine (under which the State holds water bodies in trust for the people) and the takings clause (under which the State may not take property without just compensation). At this stage, it is not clear that the moratorium is consistent with Hawai’i’s public trust obligations. Likewise, it is not clear to what extent compensation would be required for the “taking” of the right to transfer permits. Both of these issues could eventually cause significant hassles.

Federal Legal Review

The federal government’s Role in Fisheries is the Management of fisheries; it does not include closures not founded in science or public meeting outcomes! Decades of legislative hearings, public meetings, and rule packages have not closed the fishery; they have only required an EIS. The EIS was approved and passed!

- [Magnuson-Stevens Act](#), or MSA, was signed into law 50 years ago on April 13, 1976; it was nothing short of visionary. And it remains so today.

“While the government may impose temporary area closures for conservation, the primary goal of management frameworks like the Magnuson-Stevens Act is to ensure long-term, continued operation rather than permanent, absolute closures”.

Allowing one user group over another, say, tourism or fishing for food, to continue while banning the aquarium fishery is a clear violation of the government's role.

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Government fisheries management focuses on balancing sustainable seafood production, economic stability for fishing communities, and ecosystem health, largely using the Magnuson-Stevens Act in the U.S. to prevent overfishing and rebuild stocks. Management includes monitoring, controlling, and supporting the industry, rather than closing it entirely.

- **Multiple Use Mandate (FLPMA):** The Federal Land Policy and Management Act (FLPMA) of 1976 dictates that public lands under the Bureau of Land Management (BLM) must be managed to meet the present and future needs of the American people. This means balancing uses in a way that does not necessarily maximize the greatest economic return but provides the most benefit to the public. This should also apply to undersea landscapes and fisheries in Hawaii.
- **Non-Discriminatory Access:** Public lands must be open and accessible to all citizens. Recent legal actions, such as regarding "corner crossing," have reaffirmed that private landowners cannot block public access to these lands.
- **Balanced Management:** Management is meant to balance activities like livestock grazing, energy development, and tourism with conservation efforts.

Key Aspects of Government Fisheries Management:

- **Preventing Overfishing:** Regulations are designed to rebuild stocks to sustainable levels, allowing fishing to continue, rather than shutting down fisheries.
- **Economic Stability:** Programs and policies, such as those discussed on [NOAA Fisheries](#), are designed to support commercial and recreational opportunities, jobs, and communities.
- **Scientific Monitoring:** Using data to guide decisions on when and where fishing occurs, which allows for adaptive management instead of complete closures.
- **Combating Illegal Fishing:** The U.S. government prioritizes combating IUU (Illegal, Unreported, and Unregulated) fishing to protect legitimate, sustainable, and local fishing industries.
- **Regional Management:** Regional councils often tailor rules to local needs, ensuring that local fishermen can continue to work.

- **Support & Subsidies:** Governments often invest in the sector through grants, infrastructure, and services, enhancing the ability for fishermen to operate sustainably.

Public lands in the United States are managed under the legal mandate of **multiple-use and sustained yield**, designed to balance various competing activities—including recreation, grazing, energy development, and conservation—to serve all users without being inherently prejudicial.

Key Legal Principles

Evolving Management (The Public Lands Rule)

As of 2024, the BLM finalized the "Public Lands Rule" (or Conservation and Landscape Health rule), which places conservation on equal footing with other uses.

- **Conservation as a Use:** This rule acknowledges that restoring and protecting healthy ecosystems is a legitimate use of public land, alongside ranching and mining.
- **Mitigation and Restoration:** The rule introduces "restoration and mitigation leases" to allow partners to restore degraded habitats, intended to support, not displace, existing authorized uses.

Constraints on Management

While management aims to be for everyone, the law allows for specific restrictions when necessary:

- **Areas of Critical Environmental Concern (ACECs):** The BLM is required to prioritize the designation of ACECs to protect important natural or cultural resources.
- **Wilderness Act & National Monuments:** Congress can, and does, create special designations that restrict certain uses (like motorized travel or development) in specific areas.
- **Prioritizing Health:** Management must avoid "unnecessary or undue degradation" of land resources.

The core objective is to manage public lands (Undersea Landscapes Preservation Lands of Hawaii) to provide a diverse range of resources and opportunities without privileging one specific user group to the detriment of others or the land itself.

International Law

The United Nations defines the seabed and ocean floor beyond national jurisdiction as the "**common heritage of mankind**" (CHM). United Nations General Assembly Resolution 2749 (XXV) of 17 December 1970, and under UNCLOS Article 136, this means no state can own these areas, and their resources must be managed collectively for the benefit of all, rather than for individual national gain.

Conclusion

According to state, federal, and international laws, Undersea landscapes are to be shared, and individual user groups are not to be banned from their use. Rather, management and stewardship are the constitutional mandates of government.

A ban on the aquarium fishery runs counter to science and sustainable fishing. The largest ecological impacts created by many other user groups permit far outweigh the small fishery, and targeting the aquarium fishery is a clear constitutional violation, considering the DLNR DAR Rules Package Conclusion in the report at the end with the link.

Any resolution or law supporting a ban is founded on unlawful discrimination against one group, for example, allowing seafood fishermen to catch the most abundant West Hawaii fish Kole tangs, like with the recent BLNR Rules Package ruling (especially larger breeders), and not allowing aquarium fishermen to catch the same fish (smaller, more abundant non-breeders) means this is not a resource issue, but clearly unlawful prejudice and an unequal treatment under Hawaii State Law and there for subject to legal proceedings.

We think the current intent of the Hawaii State Legislature ban bill has sufficient constitutional deficiencies to warrant deferral in the Legislature. In 2026, the Hawaii State Legislature did just that: deferred HB2101, the aquarium fishery ban bill. It is in everyone's interest to pass a law that is based on sound science, past government aquarium fishery passage decisions, public reviews and approvals in West Hawaii Fishery Council Meetings, FRA approval meetings, Rules package approval for both West Hawaii and Oahu to reduce andy global warming impacts by the fishery in BLNR rules meetings in 2014 and 2015, EIS West Hawaii aquarium fishery EIS BLNR vote passage, Supreme Court Rulings—and ignore not lobbying pressure that is not based in science and ignores the global warming impacts of the opposing user group -tourism or any bigoted decision vulnerable to constitutional attack.

Supreme Court Of Hawaii Ruling Upholding EIS passage, and thus Permit Approval Hawaii Attorney General: Unconstitutional to Ban Fishery, BLNR Rules Package Ruling! BLNR Vote 7-0 in favor of Rules Package to Reopen Fishery Oct. 2025

How the misinformation done by Earth Justice and other anti-fishery lawyers and the court decisions based on these lies have affected other permitting processes, they should not be rewarded in any way for their deception:

Court injunction blocks commercial ocean permitting in Kā'anapali hundreds to lose jobs! What do the Super Ferry, Thirty Meter Telescope, Aquarium Fishery, and now all Commercial Fisheries and All Ocean-based Tourism Permits have in common?

Act 343 is shutting them down solely due to user conflict, not environmental concerns.

HRS Chapter 343 1-7 Is Viewable by pressing the "next results" at the top of the page to scroll through. Link:

<https://search.capitol.hawaii.gov/HRS/isysquery/995ea4a7-9608-41ab-a7f4-7446f84626bd/1/doc/>

Whereas chapter 343 HRS does not imply anywhere in its statutes that ocean-based permits apply. This law was intended for land-based construction untyill Earth Justice lied to the courts and won to require the aquarium fishery to be the first fishery or ocean use permit in the United States to require environmental reviews despite whole government divisions managing the fishery successfully.

NEWS:

Court injunction blocks commercial ocean permitting in Kā'anapali

<https://mauinow.com/2024/12/06/court-injunction-blocks-commercial-ocean-permitting-in-ka%CA%BBanapali/>

In addition, another current lawsuit will affect all Commercial Marine License permit holders. Lawsuit 1CCV-24-0001625 is before the First Circuit Court. A ruling will likely require all commercial fishing permits to undergo environmental reviews. All commercial fishing permits could be eliminated immediately! Small Nearshore fisheries are worth 16 million annually, and the Tuna Fishery is worth 100 million annually.

The Legislative Goal Should be to exempt all ocean use permits; DLNR effectively manages to be exempt from HEPA EIS laws by clarifying the meaning of Act 343 regarding ocean use permits.

Anti tourism lawsuit was just ruled that commercial ocean user permits in Kā'anapali require environmental reviews. Hundreds of Jobs will be affected in an already devastated location. Environmental Court Judge Peter Cahill has ordered the Department of Land and Natural Resources not to issue or renew commercial use permits for state waters in Kā'anapali until it can complete environmental assessments for their use or determine such permits are exempt from environmental review under Hawai'i law. We would expect this precedence to apply to all Commercial Ocean tourism permits. We expect these permits, despite being given time to continue until permits expire, to be taken before then, as was done regarding the aquarium fishery.

Lawsuit 1CCV-24-0001625 will likely very soon result in a similar ruling for all commercial Fishing permits. Ensuring a resulting HEPA law precedence requirement for all fishery DLNR-issued permits. The Hawaii seafood industry generates around \$867 million in annual sales impacts, making it a significant contributor to the state's economy, with the majority of this value coming from the high-value, low-volume longline fishery that is considered the largest food-producing industry in Hawaii.

80% of all visitors to Hawaii participate in Ocean activities, and invalidating ocean user permits would be devastating to the 20 billion dollar a year tourist industry. In 2019, the visitor industry supported 216,000 jobs statewide, yielded nearly \$17.8 billion in visitor spending, and contributed more than \$2 billion in tax revenue to state coffers.

Despite the acceptance of the RFEIS in July 2021, the DLNR has not issued a law, in numerous respects. The Circuit Court, however, found that the RFEIS was sufficient as a matter of law, and entered judgment to that effect on September 12, 2022. The Plaintiffs in that action appealed, and the Supreme Court issued its ruling affirming the Circuit Court on August 28, 2024. In that opinion, the Supreme Court discussed each of the complaints concerning the sufficiency of the RFEIS and, in every case, found the RFEIS to comply with the requirements of HRS Chapter 343 and Hawai'i Administrative Rule ("HAR") § 11-200. Still, HEPA laws in Act 343 have failed the sustainable Aquarium Fishery and they still have not been issued permits.

DLNR has not given out permits after 7 years and \$750,000 in fishers' and states legal out payment efforts while unemployed in the fishery even though researchers have already considered the fishery sustainable. Therefore, they cannot be trusted concerning the issuance of aquarium fishing, commercial fisheries, tourism permits, or EIS passage for these groups.

Act 343 was intended upon passage to only apply to land-based activities because DLNR, with a team of marine biologists, had already shown to be effective in ocean management. The legislature gave DLNR the power to implement emergency rules in case of any marine species endangerment, banning their take as needed. And DLNR was given a path to create new laws to protect the environment. Every 5 years, SWAP reviews all Marine species and determines if further regulations or studies are needed.

Marine fish are the most efficient breeders on the planet, and during the past five extinction-level events, they have had a greater survival rate than land-based species. No Marine fish are currently threatened or on the verge of extinction, unlike over 100 land-based species. All Marine fish species historically and legally under current take laws are considered IUCN species of "Least Concern".

Current Laws limit the take of marine fish by aquarium fish permits and were already sustainably managed by DAR with daily limits, size limits, protected areas, white list of approved fish, and many other laws already and was deemed sustainable by a group review of 21 of the world's leading marine biologists in the “We expected better letter” in favor of the fishery due to it's sustainability.

Ka'anapali tour businesses were just devastated by the Lahina fires, and the closure of these groups will result in even more job losses and a reduction in Maui tourism. Lahina Harbor is still closed and requires 34 million in restoration before it can open and the only location for these business to exist effectively is Kā'anapali.

The Kā'anapali. The lawsuit allowed Hawaiian groups to blackmail this business over a parking conflict. User conflict was also the basis of the aquarium fish lawsuit, which resulted in the loss of the Hawaii model, the most sustainable and valuable fishery.

With over 15,000 Hawaiians moving away from Hawaii annually, the loss of more jobs without reasonable environmental causes, just user conflict, is unacceptable. Ten percent of aquarium fish participants were of Hawaiian ancestry and were part of those 15,000 displaced Hawaiians. Current HRS 343 11-200.1-9 laws put an undue burden on filers, are excessive in demand, and effectively shut down those required to do them. This means changes must be made, or Hawaii's economy will significantly suffer.

Act 343 (read the link below) clearly was not intended to apply to well-managed DLNR ocean permits and extended far beyond 343's intended legislative mandate due to biased Supreme Court decisions, which were decided not based on science or fact but on a broad interpretation of actual meaning given false testimony from Petitioners. HRS Chapter 343 1-7 Is Viewable by pressing the “next results” at the top of the page to scroll through. Link:

<https://search.capitol.hawaii.gov/HRS/isysquery/995ea4a7-9608-41ab-a7f4-7446f84626bd/1/doc/>

DLNR, DAR, BLNR Presentation April 2024; Ch. 91 BLNR Rules you have resolutions to oppose. Overview Conclusions:

“DAR does not find clear evidence to suggest that limited commercial aquarium fish harvest, as proposed in the RFEIS' preferred alternative, would adversely impact the long-term viability of target species populations. DAR also does not find clear evidence to suggest that the activity would result in any measurable declines in ecosystem health or resilience. Finally, DAR finds that existing and proposed management measures would most likely mitigate any potential negative effects of the fishery and provide sufficient safeguards against unforeseen changes in population or ecosystem status”. Link to Video of Presentation: <https://youtu.be/djjtIsvg7qs?feature=shared>

Hawaii's top leading marine biologists scientist speak : William Walsh Ph.D., Ivor Williams Ph.D., Brian Tissot Ph.D.; Leon Hallacher Ph.D.; Bruce Carlson Ph.D.; Charles Birkeland Ph.D.; Jeremy Claisse Ph.D.; Mark Christie Ph.D.; Richard Pyle Ph.D.; Leighton Taylor Ph.D.; Randy Kosaki Ph.D.; Cynthia Hunter Ph.D.; Brian Bowen Ph.D.; Brian Zgliczynski Ph.D.; Jeff Ebel Ph.D.; Alan Friedlander Ph.D.; Kosta Stamoulis Ph.D.; Delisse Ortiz Ph.D.; Jan Dierking Ph.D.; Rob Toonen Ph.D.; and Jim Beets Ph.D. Thursday, June 25, 2020,

“As experienced Hawaii marine science researchers with a direct/intimate understanding of this issue, **we find the disregard for the science-based management initiatives of DAR and island communities demoralizing and counterproductive.** We expect better from DLNR leadership. We want to re-emphasize that the strong support we are expressing for this fishery is due entirely to

the survey efforts and results of the DAR research team. There is a large body of data and other evidence showing that the aquarium fishery is sustainably managed and that the system works. This type of science-based management should be a model for other fisheries in Hawaii. The truth is out there; it needs to be embraced".

"There were no significant differences in damaged coral between control and collected sites to indicate the presence of destructive fishing practices. In addition, there were no increases in the abundance of macroalgae where the abundance of herbivores was reduced by aquarium collecting".

Alan Friedlander Ph.D.:

The higher human population locations showing lower fish populations, as reported by Friedlander, were based solely on larger marine reef fish used for seafood consumption, and the same studies clearly showed that reef fish used for aquarium purposes did not experience similar population declines.

- Data supported by many others, like Dr. Bruce Carlson

- Friedlander, one of Hawaii's leading scientists, spoke out in favor of the aquarium fishery signing the letter above.

- **2015 Video Proof EJ Lies: How do you shut down a sustainable fishery?**

Bruce Calson PhD Video Presentation

S Kupao-Odo, Attorney Earth Justice, "no studies, no limits, DLNR refuses to do studies, no documents published by DLNR, millions of fish taken." And she gets a ruling that the fishery must do an EIS!

Dr. Bruce Anderson, Administrator of the Division of Aquatic Resources (DAR)

"NOT AN ACCURATE STATEMENT AND THEY SHOULD KNOW BETTER THAN THAT."

"Very good data on this, as good as anywhere in the world: stable, with populations remaining the same or increasing, means the fishery is sustainable." Many studies have been published, and yearly reports to the legislature have been completed every 5 years.

Video Link: https://www.youtube.com/watch?v=AU_WZOyJzqk&t=9s

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- **Dr. DAN A. POLHEMUS PhD:** "Currently, mortality rates from collection to wholesaler are estimated at 0 to 1 percent. In the wholesalers tanks, mortality rates range from close to 0% up to 2%. During shipment, rates range from 0.75% to 2%. This give a current total of between 1% and 5%, down from a range of 5% to 8% in the early 1980's (van Poolen and Obara, 1984; estimates of wholesalers and collectors, own study)." I haven't seen any work to support the figure of 99% mortality rate within one year for captive marinelife. So, in the grand scheme of things, the aquarium take on Maui is literally a drop in the bucket, representing less than 2% of the total mortality of reef animals" .

"This serves to point out that undue focus and hyperbole about aquarium collecting and its impact on the reefs is dangerously shortsighted and counterproductive. We need to think and act holistically".

Brian Tissot Ph.D. "the West Hawaii fishery is a marvel of modern marine policy, an admirable blend of conservation science and sociology, or "integral ecology," capable of pointing the way for embattled fisheries around the world".

Dr. Bruce Carlson, PHD: "You can now see how the misuse of science and scientists (ROBERT E. HUETER) has resulted in the present situation in Hawaii, where one of the best studied inshore (and most highly regulated) fisheries has been trashed by passionate

and very misguided individuals. They are led here by a **few master manipulators of disinformation spewing forth wild accusations based on anecdotal evidence.** There is no evidence of ecological harm to the reefs. In fact, the populations of yellow tang and kole on the Kona coast, even in areas that are fished, are significantly higher than marine protected areas on Maui and even Papahānaumokuākea.” Dr. Bruce Carlson PHD, former director, Waikiki Aquarium, Atlanta Aquarium

ROBERT E. HUETER, Ph.D.: “I see that TIRN is now taking credit for legislation to stop the Hawaiian aquarium trade. This is not something I would’ve necessarily supported and, given the chance, would have discussed the sustainability of this trade with you. Please see the attached editorial on this issue by my respected friend and aquarium expert, Dr. Bruce Carlson. **If TIRN is going to continue to operate like this, taking semi-scientific positions without consulting its own Science Advisors, then I wish for you to remove me from your list of advisors.”**

Andrew L. Rhyne, Ph.D.,” I would argue it is unethical to ask lawmakers and the public to believe that destroying one group’s livelihood is a moral necessity when the real effect is to improve the business environment for another group.

For years, activists have tried to paint the Hawaiian aquarium fishery as destructive, despite the fact that the West Hawaii fishery has long stood out as one of the best-studied and best-managed reef fisheries anywhere in the world, whether for food or aquarium use. In our 20+ years of published scientific work.

The point is that these fisheries must be judged fishery by fishery, species by species, using data, management, and outcomes, not slogans. There are volumes of work that have described the Kona yellow tang fishery, prior to **closures driven not by science but by activism,** as a model of management under strong governmental capacity. In their efforts to reopen the fishery, **the fishery plan has been further strengthened, with quotas, limited entry, and all the bells and whistles any fishery manager would like to have, all of which continue to improve the fishery”.**

William J. Aila Jr. “We have read the Cultural Impact Assessment and the testimony of Native Hawaiians who oppose but, cannot understand how allowing 15 permitted aquarium fishermen on Oahu with the restrictions of a limited species white list, conservative daily individual catch limits, weather imposed fishing restrictions, and a significant deep water reserve, will result in any over fishing of species that will result in harm to cultural practices.

A fish that is eaten, chopped up for palu (chum), used for bait, or is offered as ho’okupu (an offering), or placed in aquarium is no longer available for spawning. The FEIS provides analysis and indicates that the preferred alternative results in a sustainable fishing practice”.

Alton Miyasaka DLNR Aquatic Biologist, Project Director

“The measure (AQ Ban Bill) demonizes the hard-working members of this community, some of them your constituents, by characterizing that somehow the people that collect fish for sale as pets are not pono, are incompatible with our values, and have no respect for the environment. The measure makes these claims but provides no evidence to support them. Since when has fishing become so vilified? It used to be in ancient Hawaii that the lawai’a (fishers) were a respected and vital part of the community, providing for the daily needs of their community and supporting a culture of sharing and mutual benefit. The measure is contrary to our island values. Instead of expanding our economy by making full use of our resources, it seeks to narrow our economy by removing an industry that has thrived for decades. Instead of uniting our peoples for the common good, it seeks to divide the community by making false claims that some are not pono. The measure claims that the prohibition is needed now to protect traditional cultural practices but does not explain how commercial collecting for the pet trade threatens these practices”.

Breaking News: Biblical Fish Bloom Of 2026?

Meta-analysis by Ron Tubbs, B.S., N.D. UHM 7-19-26

A recent survey on July 19th, 2026, of an April 2025 fish count area shows a significant increase in marine fish species at the 80-foot ledge depth south of Oahu. There was a noted increase in fish populations for the yellow tangs (fourfold) and Potter's angels (an estimated 10-fold increase) compared to the 2025 SAP fish count survey! More accurate data is needed, and DAR and NOAA have been notified.

Many researchers and fishermen were wondering if the 2026 "Super" El Niño will affect fish populations like the 2014-2015 "Godzilla" event did. We may have our answers soon!

Signs indicate that early reproductive fish bloom has occurred, and summer fish populations have significantly increased. Whether this event is widespread or has already ended has yet to be determined. But the big abundance on our reef is greatly welcomed after a reported decline in the 2024 PIFDS NOAA Oahu fish counts. Contributing factors to this observation may be that the April observation was pre-summer fish increases, but decades of observations of that area clearly indicate a significantly higher population value based on historical base observations, indicating we are once again in an uptrend with fish populations.

Abundance seemed widespread, affecting several species like the 2014-2015 Biblical fish bloom linked to the "Godzilla" El Niño. The 2026 population just observed was mainly juvenile reef fish; so far, a similar small reproductive fry drop observed and reported in Aug. 2014 has not been seen. Both 2025 and 2026 video survey observations support healthy reefs and corals.

Video of April 2025 SAP DAR Collection fish survey Link:

<https://studio.youtube.com/video/URO7iLXARS4/edit>

Video taken 7-19-26 Short low air bump dive. Additional comparison video needed.

<https://youtu.be/PS1inObcw0k>

News

Early halalu, oama season draws fishers to Oahu's shoreline.

Jul 20, 2026 Large schools of halalu and oama usually show up around July or August, but several local fishers said they started seeing them as early as May. For more Local News from Hawaii News Now: <https://www.hawaiinewsnow.com> For more YouTube Content: _



[/ @hawaiinews](#)

Video Link: https://youtu.be/EJ_t6bggX60

[\[%0dEI%20Nino%20forms,%20expected%20to%20strengthen,%20say%20NOAA%20forecasters%20June%202026%0d# NOAA \(.gov\) https://www.noaa.gov › news-release › el-nino-forms-ex...\]](#) **El Nino forms, expected to strengthen, say NOAA forecasters June 2026** [\[%0dEI%20Nino%20forms,%20expected%20to%20strengthen,%20say%20NOAA%20forecasters%20June%202026%0d# NOAA \(.gov\) https://www.noaa.gov › news-release › el-nino-forms-](#)

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Jun 11, 2026 — *El Niño, the warm phase of the El Niño Southern Oscillation (ENSO), is predicted to intensify to a moderate or strong level this fall.*

The U.S. National Oceanic and Atmospheric Administration (NOAA) officially confirmed that El Niño conditions have developed and are actively strengthening. Forecast models indicate a 63% probability that this event will escalate into a "super El Niño", potentially reaching unprecedented ocean temperature anomalies. Whether ocean temperatures reach 30 °C in the hottest month of August has yet to be determined, but today, 7-22-26, they are at 26 °C.

While "super El Niño" is not an official scientific classification, meteorologists use the term to describe historically strong events where sea surface temperatures in the central and eastern Pacific surge above 2° C to 3° C above average.

What could we expect according to the science reviewed below? We could see not only the early summer increase in fish populations that has occurred, but maybe another larger fish recruitment in September & November. If we see another fish recruitment, they will not have been seen on the nearshore reefs for up to 4 months. So, observations will be important from December to February 2027 to further document this event.

Science is complicated, and no one knows yet the future regarding global warming and its impacts on our Hawaii fisheries. Let's look at the environmental science and the resilience of those fisheries.

Marine Fish are Hawaii's and the World's most renewable resource.

Survivability is usually low depending on environmental factors, but this year environmental factors seem favorable. Here are a few reproductive numbers for various fish species.

Bluefin Tuna can produce 45-50 million and even upwards of 540 million per spawn daily.

Opah Moon Fish produces [300 million eggs](#) per female. With embedded link.

Tuna produces 5 million to 15 million fry per female per spawn daily over a period of weeks!

Ulua jack adult females produce 44,000 fry per spawn

Yellow tangs daily produce 24,000 to 44,000 fry per spawn per female, many times a month. Male fish sperm spawn numbers far outweigh female egg counts, so females with lower numbers are referred to in fecundity reproductive science. Recent research indicates that they can spawn daily, and that means they probably greatly exceed the 1.14 million to 1.055 million per female yearly estimates that were based on full-moon breeding days alone!

Multiply that by the 3.6 million West Hawaii Yellow Tang 2026 population in the 30-to-60-foot range alone, at a 1% survival rate to full adult breeding stage, has a potential of 22 billion new adult breeder fish on the reefs every few months! Yellow tangs are found up to 265 feet deep, so the 3.6 million is only a small population estimate!

Other surgeon fish have also been shown to breed daily year-round.

Yellow tangs after the fry spend around 4 months at sea developing, they return to the reefs, where they reach breeding size in 3 months. Yellow tangs as small as 2.6 inches 65mm have reproductive organs and oocytes in their ovaries. Large 8-inch breeders are restricted for the Hawaii aquarium fishery, leaving active breeders on every Hawaiian reef ocean location to repopulate. **The aquarium fishery was truly a "Model Fishery," Leaving breeders and fishing only smaller fish that replenish quickly!**

The complete yellow tang population doubling time is only 15 months.

Fishers' Angel female spawns 102 times out of 110 days, producing hundreds to thousands of fry per spawn.

Potter's Angel spawns nearly every day, producing approximately 1,000 to 10,000 fry daily.

Flame Angels spawn up to 10,000 eggs per spawn. Captive breeding programs report that over a 124-day period, females produced 97 spawns, so reproduction can occur nearly every day.

Wrasses, like the luna wrasse, produce hundreds to thousands of fry per spawn up to 7 times a day.

Triggers like the Cross hatch can produce 32,000 fry per spawn daily.

Let's look at the Oahu Oceanic Institute's published captivity reproductive potential of Flame Angels. So, at 280 spawning days per year, an estimated average of 10,000 eggs per egg-spawning female results in 2 million 800 thousand eggs per female flame angel per year. The survival rate of eggs to the adult breeding stage in 180 days is usually around 1%, **resulting in a potential of 28,000 new adult breeders every 6 months per female.** Adult males can fertilize more than one female, and the female-to-male ratio is 7:1. The rate-limiting factor for reproductive fecundity is the female; males can fertilize nearly every egg of multiple females with their greater numbers of sperm. **Most marine fish are unable to breed in captivity, and aquarium fishermen are required to provide brood stock for those that can be reproduced via aquaculture. Many have gone bankrupt trying to breed marine fish.** NOAA reports consistently show that over 90% of monitored U.S. fish stocks are not subject to overfishing, highlighting a robust, sustainable management system. Under the Magnuson-Stevens Act, **90–93% of United States and Hawaii fish stocks are fished at sustainable levels**, with many rebuilding. Data show 80% are not currently overfished.

Marine species can migrate horizontally and vertically away from warmer waters, pollution, and unfriendly environmental impacts, and nearly all reef fish species in Hawaii also inhabit cooler, much deeper depths; this is referred to as “Deep Refuge”.

We must support a managed, sustainable fishery to create a more sustainable society, especially in isolated Hawaii, and reduce global warming impacts worldwide.

News 2014:

CORAL Excerpt: “Biblical” Spawning Event on Hawaiian Reefs

by [Ret Talbot](#) | Aug 29, 2014 <https://www.coralmagazine.com/2014/08/29/biblical-spawning-event-on-hawaiian-reefs/>

The term "biblical fish bloom" refers to an unprecedented 2014 marine event in Hawaii. Divers across the Hawaiian Islands witnessed a massive, sudden influx of juvenile reef fish—including swarms of butterflyfish, surgeonfish, tangs, and goatfish—the scale of which locals described as "biblical"

El Niño upwellings and current wind dispersal have been linked to increased fish populations. This may be partially due to the early ocean warming effects, increases in zooplankton, rotifers, algae, copepods, and food supply for young larvae.

During the 2015–2016 "Godzilla" El Niño, warmer ocean temperatures and altered wind dynamics disrupted typical larval dispersal in Hawaii. Rather than uniformly facilitating longer-distance dispersal across the archipelago, there may be a lack of transport for high larval pushes, leaving larvae to recruit closer to home and thus significantly increasing local fish populations. The Godzilla recruitment and huge increase of marine fish populations were not just in Hawaii; 2014 warming linked to significantly increased recruitment in Pacific Ocean-wide and northern California fisheries also.

Note below the large increase in fish populations after the “Godzilla” Fish Bloom

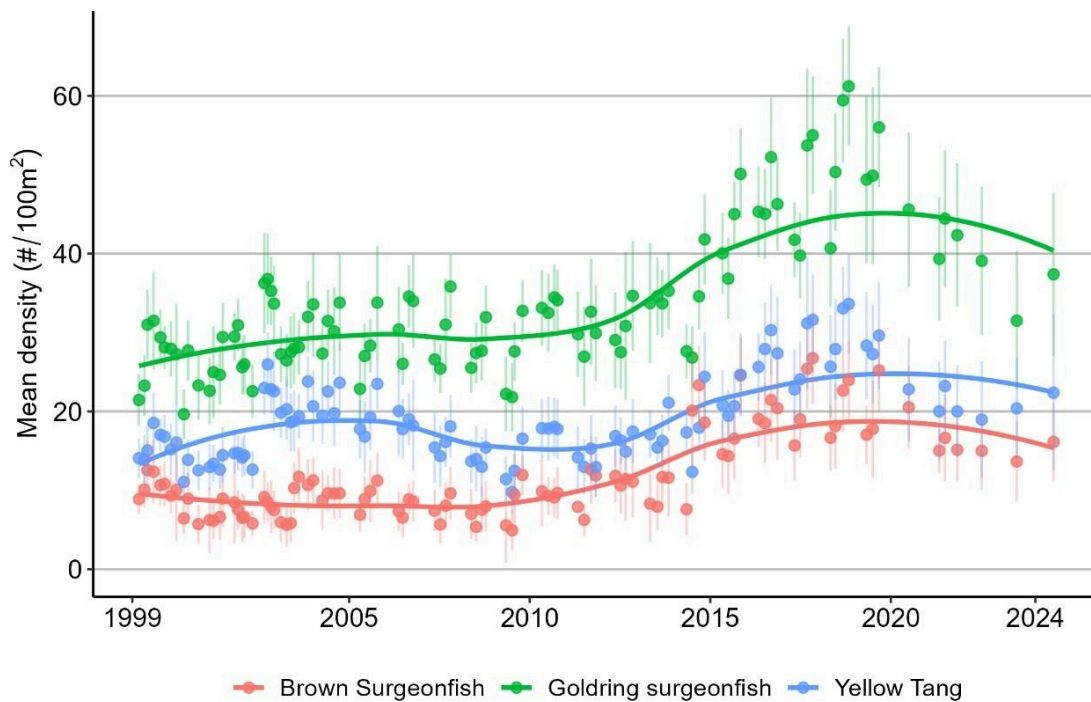


Figure 23. Mean density of select small surgeonfishes in WHAP surveys. Points represent mean density across 25 WHAP sites for each survey round per species. Error bars represent standard deviation to depict the level of variability between sites. Recruit sized individuals are removed from these data for ma'i'i'i (red), kole (green), and lau'ipala (blue) .

The overall average value shows an increase in populations from 1999 to 2024. Until 2017, the aquarium fishery was open, indicating no significant long-term impacts on overall fish populations. Millions more Kole and yellow tang fish, fish used for the aquarium trade, were counted after the 2014-2015 event. This clearly shows little impact in increasing, not decreasing, fish populations during the most active fishery years. There is no long-term link between the aquarium fishery and decreasing fish populations based on this data.

"These patterns suggest that La Niña and the neutral phases of the ENSO cycle are generally favorable for adult reproduction and larval development in the spring and summer, while El Niño phases may limit recruitment in the late summer and fall. We hypothesize that episodic recruitment during non-El Niño phases is related to favorable survivorship and transport dynamics that are associated with the formation of pairs of anticyclonic and cyclonic eddies on the leeward sides (western shores) of the Main Hawaiian Islands.

Heim-Ballew, Heidi. *Identifying migration flexibility and the environmental factors that influence variation in recruitment success in partially migratory Hawaiian fishes*. Diss. Texas A&M University-Corpus Christi, 2019.

Larval fish recruitment is generally highly variable in space and time, and can significantly influence adult population abundance, density and distribution, as well as community structure in coral reef systems.

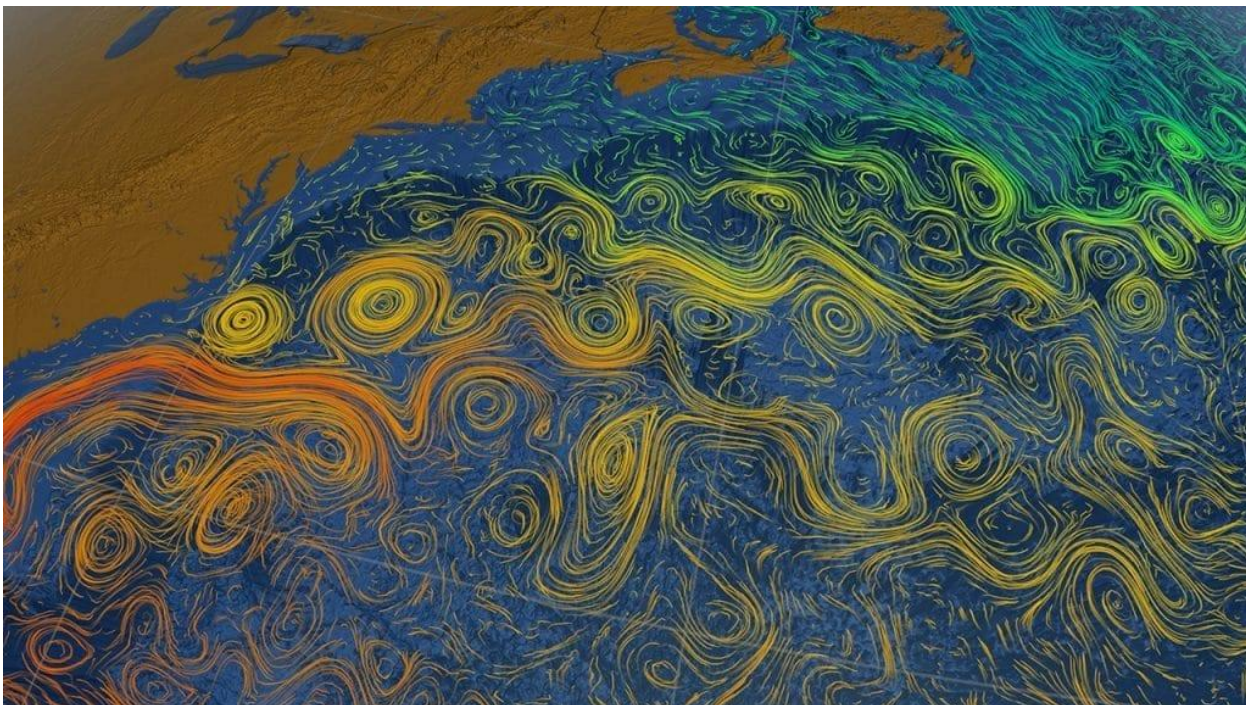
Carlson DB, Garcia SM, Faucci A (2024) Coupling and de-coupling of the El Niño Southern Oscillation to the supply of larval fishes to benthic populations in the Hawaiian Islands. PLoS ONE 19(10): e0312593. <https://doi.org/10.1371/journal.pone.0312593>

El Niño events, especially large ones, are linked to increases in reef fish populations in Hawaii. 2012 review showed that multiple peer-reviewed scientific research papers over 30 years support the fact that fish populations increase when ENSO cycles occur. But they also question

the effects and links about some biochemical processes that may cause fish decline. The published complex science on this topic can be conflicting.

“We found that the abundance and diversity of larval fishes was negatively correlated with the Multivariate El Niño Index (MEI), and that larval variables were positively correlated with measures of fall recruitment (September & November), but not correlated with spring-summer recruitment (May & July). In the MHI, SST variables were not correlated with the MEI, but two successive El Niño events of 2014–15 and 2015–2016 were characterized by SST maxima approaching 30°C. Two large pulses of benthic recruitment occurred in the 2009 and 2014 recruitment seasons, with > 8000 recruits observed by divers over the summer and fall months. These patterns suggest that La Niña and the neutral phases of the ENSO cycle are generally favorable for adult reproduction and larval development in the spring and summer, while El Niño phases may limit recruitment in the late summer and fall. We hypothesize that episodic recruitment during non-El Niño phases is related to favorable survivorship and transport dynamics that are associated with the formation of pairs of anticyclonic and cyclonic eddies on the leeward sides (western shores) of the Main Hawaiian Islands”.

Carlton, David B., S. Maria Garcia, and Anuschka Faucci. "Coupling and de-coupling of the El Niño Southern Oscillation to the supply of larval fishes to benthic populations in the Hawaiian Islands." *Plos one* 19.10 (2024): e0312593.



Eddies are vital to the Earth's climate system because they mix the ocean. By continuously transporting warm water toward the poles and cold, nutrient-rich water toward the equator, they distribute heat and sustain the marine food web. You can explore near real-time satellite imagery of global eddies using the [NASA Salinity Mesoscale Eddies](#) resource.

Carlton, David B., S. Maria Garcia, and Anuschka Faucci. "Coupling and de-coupling of the El Niño Southern Oscillation to the supply of larval fishes to benthic populations in the Hawaiian Islands." *Plos one* 19.10 (2024): e0312593.

in Hawaii suggest that the species spawns several months earlier in the calendar year and matures at larger body lengths in Hawaii

DeMartini, Edward E., Ross C. Langston, and Jeff A. Eble. "Spawning seasonality and body sizes at sexual maturity in the bluespine unicornfish, *Naso unicornis* (Acanthuridae)." *Ichthyological Research* 61.3 (2014): 243-251.

A strong increase of the P/B ratio of this species was observed during nutrient-poor, warmer water conditions typical of El Niño, owing to the massive recruitment of fast-growing juvenile scallops. Trophic ecology theory predicts that when primary production is nutrient-limited, the trophic flow of organisms occupying low trophic levels should be constrained (bottom-up control).

Riascos, José M., et al. "Breaking out of the comfort zone: El Niño-Southern Oscillation as a driver of trophic flows in a benthic consumer of the Humboldt Current ecosystem." *Proceedings of the Royal Society B: Biological Sciences* 284.1857 (2017): 20170923.

Kole Tangs Ctenochaetus Strigosus , Yellow Tangs Zebrasoma flavescens are currently the third and fourth most abundant reef fish. They were also the most fished Aquarium Fish species. See the findings in the chart below.

Hawaii DC114 2020 Rpt; *Findings and Recommendations of Effectiveness of the West Hawaii Regional Fishery Management Area (WHRFMA) Report*; DLNR.

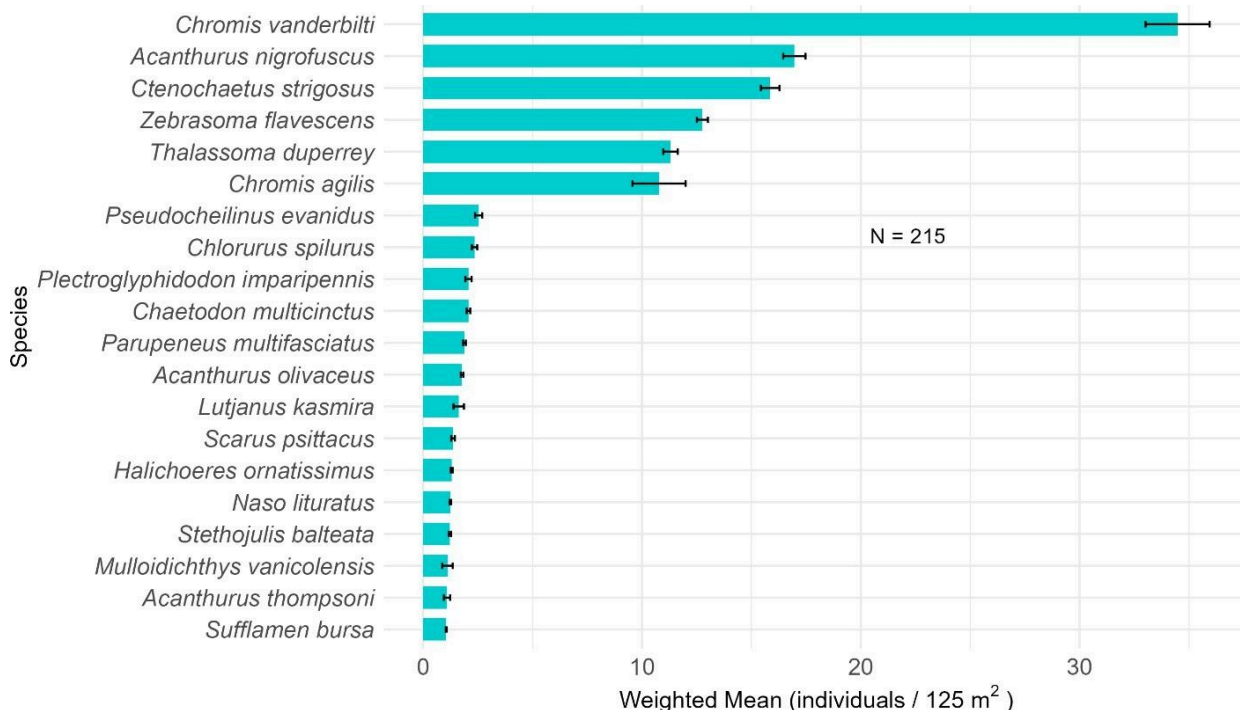


Figure 20. The 20 most abundant reef fish species recorded during 2022-2023 FAHU surveys. Mean density per transect (125 m²) weighted by stratum weights with error bars to show weighted standard error for the sample size of 215 surveys across nine strata. Scientific names were used to distinguish species with overlapping Hawaiian names. Translations can be found in Appendix table A-1. ***Kole Tangs Ctenochaetus Strigosus , Yellow Tangs Zebrasoma flavescens***

2015 Fish Bloom:



Swarms of butterflyfishes, tangs, and other reef fishes appeared throughout Hawaii. Image: Pauline Fiene.

Widespread reports of an unprecedented recruitment of reef fish juveniles in the Hawaiian Islands

Unusual Recruiting Patterns and Smiling Fishers

As Biologist **Matthew Ross**, an Oahu-based aquarium fisherman, explains it, “Recruitment, known colloquially among fishermen as ‘the drop’ is basically what defines our fishing season.” Ross likens it to how a farmer’s season depends on the rainfall and weather. “Every year is different,” he says, “usually some fish are plentiful and some aren’t. Occasionally we’ll get a year where most fish are abundant, and, unfortunately, we sometimes get years where practically everything is scarce.... Personally, watching the drop is one of the things I enjoy most about being in the fishery; it’s always exciting to see what pattern will emerge each year.” “The recruitment has been strange this year,” says aquarium fisherman **Tony Nahacky**, who lives on the Big Island of Hawaii and has been diving the reefs since the late 1960s. West Hawaii, called the Kona Coast, where Nahacky has been diving for years, is where most of the fishing for aquarium species occurs in the State. The number of aquarium fishermen operating on the reefs of West Hawaii is relatively small compared to other fisheries, but they are closely attuned to the natural cycles. “Each year the aquarium fishermen eagerly anticipate the annual recruitment to see if it is going to be boom, average, or bust,” says Nahacky. “This year we are smiling.”



Yellow Tang juveniles: the Biggest “Drop” of a lifetime for many reef observers. Image: Dr. William Walsh/DAR

In addition to observing much larger than normal numbers of recruits of several species of fishes on the reefs where he usually dives, Nahacky says he’s also noticed some other recruitment anomalies. For one thing, he has observed that a number of species appear to be recruiting at unusual times. “For example,” he says, “*Hemitaenichthys polylepis* [Pyramid Butterflyfish] I usually see arriving in September or October, but they were arriving by the end of June this year.” In addition, Nahacky says he has seen species that usually do not recruit on West Hawaii reefs recruiting in large numbers compared to normal. “*Heniochus diphreutes* [Pennant Butterflyfish], which recruit on Oahu,” he says, “are quite rare to see as juveniles here, but there were groups up to 70 we spotted.”

“Essentially,” Nahacky concludes, “you have a mix of unusual recruiting patterns this year. This is, of course, anecdotal information based on my observations and memory of past recruitment, but in discussion with other long time collectors they agree.”

Scientists Say It’s “Off the Chart”

Dr. Brian Tissot is the Director of the Marine Laboratory at Humboldt State University, and he, along with other scientists, has intensively studied the reefs of West Hawaii since 1999. “A typical year for Yellow Tangs,” says Tissot, “may show three to seven recruits per 100-square meters (about a thousand square feet) during the summer, with 10-15 per 100-square meters during good years.”

“This year the numbers were off the chart,” says Tissot, who was not been in Hawaii himself this summer but who has graduate students from his lab reporting back to him. “I don’t know the actual numbers,” he says, “but they were an order of magnitude higher at least and perhaps more.” Tissot says it is very unusual to see hundreds of recruits in a small area, but that’s exactly what people were seeing and documenting in Hawaii this summer.

Dr. William Walsh, an aquatic biologist with the Hawaii Department of Land and Natural Resources (DLNR), has been on the reefs this summer, and while he is unable to share actual survey numbers at this time, he confirms what everyone else is saying.

Walsh has been conducting reef surveys on West Hawaii reefs since the 1970s, and what he has observed this year is, in some places, nothing short of what he terms “Amazing.” At one of his survey sites, for example, Walsh says he documented “unprecedented recruitment of Yellow Tang and Lavender Tang” (*Acanthurus nigrofusus*). He also reports very good numbers of some butterflyfishes and other surgeonfishes at the site. Other survey sites saw very good recruitment of some species like the Klein’s Butterflyfish (*Chaetodon kleinii*), various goatfishes, trumpetfish, Heniochus Butterflyfish, Chevron Tang (*Ctenochaetus hawaiiensis*), Multiband Butterflyfish (*Chaetodon multicinctus*), and Kole Tang (*Ctenochaetus strigosus*).

Walsh cautions that not all of his survey sites have seen exceptional levels of recruitment. “Our other sites have varying levels of recruits,” he says, “but really nothing too amazing. Good but not incredible.” Still, what he has seen this summer, he says, is unprecedented in his 40 years of conducting reef fish surveys in West Hawaii.

A Happy Synchronicity?

Neither Walsh nor Tissot know why this summer’s drops of many reef fishes throughout Hawaii have been as remarkable as they have been. “I don’t have an answer as to why such boom recruitment years occur other than they do,” says Walsh. There have been other good years for individual species, and there have even been some truly remarkable years, but they are often species-specific. Among the possible factors are water current patterns, weather, temperature, availability of foods, reduced predation and others.

“I don’t know why this occurred,” says Tissot. “I’m not sure anyone does. It may just be a happy synchronicity between multiple factors that influence larval success,” he conjectures, “or just a rare spawning event involving many species triggered by some environmental cue.”

“I’m sure there is all kinds of speculation on the causes,” Ross says, summing up the fisher perspective. “We all have our own crackpot theories. Some guys think it’s correlated to the prevailing winds, and some think the winter surf has something to do with it. I’m sure that folks in the conservation world are attributing it to the [Fishery Replenishment Areas] or some other conservation measures that have been enacted recently.” Ross’ own theory is that there is better fish recruitment when the water warms up faster in the summer. “But like I said,” he cautions, “this is a crackpot theory and who knows if it’s true or not.”

While he’s not sure of the causes, Ross is convinced it has nothing to do with fishing. “Since the high recruitment seems to be arbitrarily encompassing species that are caught for aquariums, caught for food, and not caught by anyone, I don’t think fishing has anything to do with it,” he says. “The ocean is so complex that I imagine it will always be a mystery.”



Diver with shoal of young Sidespot Goatfish, *Parupeneus pleurostigma*. Image: Karen Williams Bryan.

Regardless of why this year’s recruitment was so good, many people are asking what it means about the current and future health of Hawaii’s coral reefs and the fisheries that depend on them. **Dr. Bruce Carlson** is the former director of the Waikiki Aquarium on Oahu, science officer at the Georgia Aquarium, and member of the Senior advisory Board of *Coral Magazine*. An avid SCUBA diver, Carlson has logged plenty of time on Hawaii’s reefs. He recalls the massive recruitment of Fantail Filefish (*Pervagor spilosoma*) in the late 1970s and again in the late 1980s, and another influx of Hawaiian Bigeyes (*Priacanthus meeki*) in 2002. He adds that these events are retold in some Hawaiian legends so they are not just a modern phenomenon.

Carlson says these occurrences dramatically illustrate the dynamic nature of reef fish populations, and that random events may cause much of the variation in recruitment from year to year. “Most of these little fish will probably end up as food for larger fish like *ulua* [*ulua*” is a generic Hawaiian name for jacks, such as *Caranx melampygus*].” Nonetheless, he says, this year’s event suggests to him something about the health of Hawaii’s reefs in general. “It’s not bad for a reef system that has, as some would have us believe, been decimated by tropical fish collectors,” says Carlson.

Anti-aquarium fishery activists, now bolstered by the Sea Shepherd Conservation Society, have been fighting for years to shut down what they say is an unsustainable fishery. Both the State of Hawaii and the preponderance of peer-reviewed scientific literature claim the fishery is amongst the best managed in Hawaii and is sustainable.

From a fishing perspective, Ross is optimistic. “As far as the effects on the [aquarium] industry go, it’s definitely reassuring to see so many fish on the reef,” he says. “Over the years, the fish stocks here have been very good, and I’ve never felt that fish overall were in short supply. This year, however, there is so much that next year could have terrible recruitment and we’d still be okay.” Ross says fishers are also pleased to see some of the less common species, like Thompson’s Tangs and Pyramid Butterflies, be so abundant. “They are good aquarium fish,” Ross says. “It’s good to know that we’ll be able to provide them to the hobby on a consistent basis this year.”

A Regional Phenomenon?

While much of the discussion regarding this year’s recruitment has been centered on Maui and West Hawaii, Ross reports it is the best recruitment year he has ever seen in 12 years diving Oahu. Oahu’s aquarium fishery is tiny compared to that of West Hawaii, but it is a fishery that relies heavily on diversity as opposed to West Hawaii which relies overwhelmingly on Yellow Tang. “We’ve had huge pulses in the past,” he says, “but those usually have been limited to one species at a time. This is different. Most species of fish are very plentiful, with a few types in particular so abundant that they’re forming huge schools that clearly exceed the carrying capacity of the reef and aren’t displaying normal behavior.”

Dennis Yamaguchi, one of Hawaii’s most-experienced aquarium fishermen with more than 40 years of Hawaii diving experience, says last year’s Yellow Tang drop on Oahu was the best he had seen since the 1970s. “This year,” he says, “is light years beyond that.”

As in West Hawaii, the Oahu aquarium fishers and other divers are reporting exceptional drops of both surgeonfishes and butterflyfishes. “Practically all of the tangs, especially Yellow Tangs, *Naso lituratus*, Kole, and Thompson’s Tangs (*Acanthurus thompsoni*), are everywhere,” says Ross. “They are so abundant that all of these species are occurring in large numbers outside their usual habitat.” Ross explains that Yellow Tangs are usually found chiefly in finger coral, antler coral trees, and occasionally in rubble around Oahu, but this year, he says, there are large numbers of them “pretty much anywhere with any kind of structure.”

When it comes to butterflyfishes, Ross says Pennant Butterflyfish (*Heniochus diphreutes*) are especially noticeable, as are Pyramids (*Hemitaenichthys polylepis*) and Longnose Butterflyfish (*Forcipiger flavissimus*). “Probably the most abundant one, though, is the Klein’s Butterfly,” he says. “They are so abundant on the North Shore right now that, in some places, they are forming a layer six-foot [two meters] deep that’s hard to see through.”

One of Ross’s most-interesting observations is not one he made while diving though. As part of Oahu’s extremely small aquarium fishery, Ross is, almost by necessity, familiar with all aspects of the fishery from harvest to import and export. “One thing we’ve noticed,” he says, “is that Christmas Island has been shipping huge numbers of Chevron Tangs and Black Tangs—much more than normal.” Perhaps, Ross conjectures, this recruitment event might not be limited to Hawaii.

The fastest coral growth can reach 7 inches per year, *Acropora*, but those are not common corals in Hawaii. The corals that do broadcast breed over long distances and can repopulate via long-distance in Hawaii show shallow-area growth rates of 3 to 5 inches a year.

This event is not just affecting fish; reports show coral spawning, the highest ever reported event, just occurred. Corals too are broadcast breeders.

Corals spawn on a Massive Scale: The synchronized, mass spawning involves trillions of gametes released by entire reef systems, significantly increasing the chances of fertilization.

After Corals Broadcast Spawn, they can settle 10s of meters to Hundreds of kilometers away (186 miles or more). At greater distances, it takes longer to reestablish significant populations.

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May 29, 2026 — The cauliflower coral spawning event in *Kahalu'u Bay month* was said to be the most "successful and abundant" coral spawning event in years.

Along with hotter El Niño events, shallow reef bleaching has occurred. We need to be watchful of corals this year.

Most of the islands' coral reefs have recovered from bleaching! 2014 and 2015

By Audrey McAvoy Associated Press POSTED: 04:53 a.m. HST, Jan 29, 2015

(5 months after the summer high temperature bleaching event of 2014 corals recovered).

"The DLNR studied coral for bleaching -- a stress response that causes corals to lose algae and color from their tissue -- in Kaneohe Bay.

So when the stress of warmer-than-average ocean temperatures prompted many of Hawaii's corals to expel algae last year -- a phenomenon called bleaching because corals lose their color when they do this -- many were worried they might die. Now the Hawaii Department of Land and Natural Resources says most of the bleached corals have recovered. It plans to announce the result of its coral surveys on Thursday".

Coral relies on an algal symbiotic relationship for food and their survival. Corals, when they overheat, expel their algae, leaving an appearance of bleaching, but they are not dead. They can survive without algae for three months. Previous coral bleaching events in 2014 and 2015, as well as others, were short-lived, and corals largely recovered. Heating events lasting more than 8 weeks can lead to coral mortality. August is the hottest month in Hawaii's summer.

SOURCES AND MORE SCIENCE:

For further reading on the intersection of ENSO cycles and marine ecology, you can explore the full datasets and biological modeling via the [PLOS ONE Study on Larval Fish Assemblages](#) or the [NOAA Institutional Repository](#).

Azani, N., et al. "The impacts of climate change on plankton as live food: A review." *IOP conference series: Earth and environmental science*. Vol. 869. No. 1. IOP Publishing, 2021.

Bailey-Brock, Julie H. "Fouling community development on an artificial reef in Hawaiian waters." *Bulletin of Marine Science* 44.2 (1989): 580-591.

"Artificial reefs have considerable potential for enhancing near shore fisheries by increasing habitat space and cover. Filamentous algae and solitary invertebrates provide food for some fish and invertebrates within a 2-week period of immersion. Recruitment and community development were followed on PVC plates (18 × 20 cm) attached vertically to a concrete cube reef in 20 m of water off southeast Oahu, Hawaii. Plates were removed and replaced after immersion for 2-week, 2-, 6- and 12-month periods over a year".

Raya, Vanesa, and Ana Sabatés. "Long-term changes of summer larval fish community in relation to environmental trends in the NW Mediterranean." *Frontiers in Marine Science* 13 (2026): 1760679.

Heim-Ballew, Heidi. *Identifying migration flexibility and the environmental factors that influence variation in recruitment success in partially migratory Hawaiian fishes*. Diss. Texas A&M University-Corpus Christi, 2019.

DeMartini, Edward E., Ross C. Langston, and Jeff A. Eble. "Spawning seasonality and body sizes at sexual maturity in the bluespine unicornfish, *Naso unicornis* (Acanthuridae)." *Ichthyological Research* 61.3 (2014): 243-251.

Riascos, José M., et al. "Breaking out of the comfort zone: El Niño-Southern Oscillation as a driver of trophic flows in a benthic consumer of the Humboldt Current ecosystem." *Proceedings of the Royal Society B: Biological Sciences* 284.1857 (2017): 20170923.

Claar DC, Szostek L, McDevitt-Irwin JM, Schanze JJ, Baum JK (2018) Global patterns and impacts of El Niño events on coral reefs: A meta-analysis. *PLoS ONE* 13(2): e0190957. <https://doi.org/10.1371/journal.pone.0190957>

Daniel M., Robin W. Baird, and Michaela A. Kratochvil. "Beaked whales and El Niño: Evidence for ENSO effects on Blainville's beaked and goose-beaked whale space use in Hawaiian waters." *Marine Ecology Progress Series* 751 (2024): 189-209.

If you're looking for NOAA temperature data for the Pacific Ocean around Hawaii, these are the primary datasets and portals:

1. **Daily Sea Surface Temperature (SST), 1985–present**

- NOAA Coral Reef Watch 5 km satellite product (CoralTemp)
- Daily global coverage with excellent resolution for Hawaii
- Available through ERDDAP for downloads (NetCDF, CSV, OPeNDAP) and custom maps.

Data portal:

2. **Hawaii Regional SST Status**

- NOAA's National Marine Ecosystem Status provides summaries and long-term trends for Hawaiian waters.
- Uses monthly composites from the CoralTemp dataset.
- Includes trend analyses and historical context.

Dashboard:

3. **Subsurface Temperature around Hawaiian Coral Reefs**

- In-situ logger measurements rather than satellite SST.
- Covers reef sites throughout the Hawaiian Archipelago.
- Useful if you need temperatures below the ocean surface (0–30 m depths).

Dataset:

Typical sea surface temperatures around Hawaii

Approximate climatological SST:

Season	Temperature
--------	-------------

Winter (Jan–Mar)	23–25 °C (73–77 °F)
------------------	---------------------

Spring	24–26 °C (75–79 °F)
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Season	Temperature
Summer	26–28 °C (79–82 °F)
Early Fall	27–29 °C (81–84 °F)

Actual temperatures vary by location, ocean currents, and marine heatwaves.

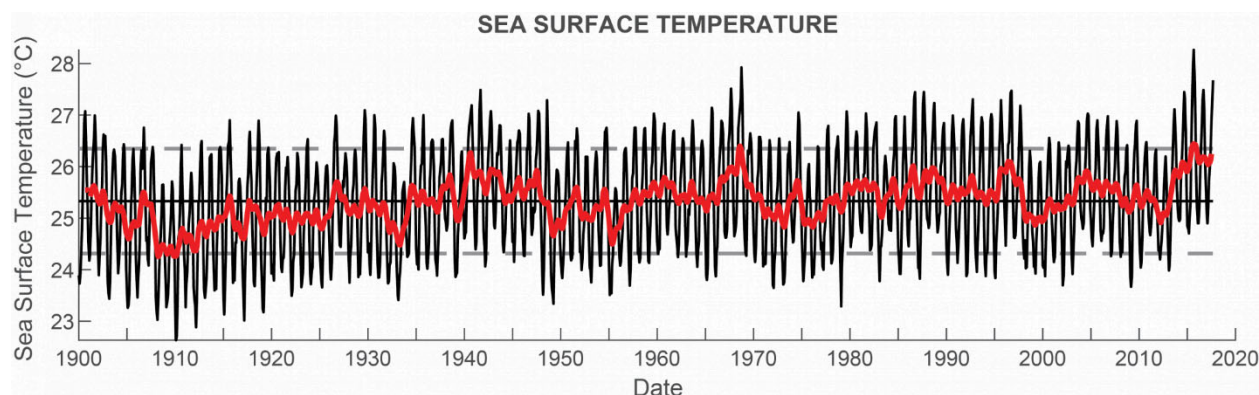
Available formats

NOAA provides data in:

- NetCDF
- CSV
- OPeNDAP
- Graphs and maps through ERDDAP
- Time-series for specific latitude/longitude coordinates

Why was 2015 so hot?

Sea surface temperature (SST) in the main Hawaiian Islands reached the highest recorded monthly temperature in well over a century (Figure 1). Temperatures in West Hawai'i were even warmer, reaching 30.3°C (86.5°F) in September of 2015 (Gove et al. 2016). These anomalously warm and prolonged ocean conditions wreaked havoc on coral reefs in West Hawai'i, causing upwards of 90% of coral bleaching and an overall relative loss of approximately 50% of coral cover across West Hawai'i (Kramer et al. 2016).



Figure

1: Weekly sea surface temperature for the main Hawaiian Islands from 1900–2018 (black line). Red line represents a 12-month moving average. Horizontal lines represent the long-term mean (1900–2018; solid line) and ± 1 standard deviation (dashed line). Data Sources: [Sea surface temperature](#), [NOAA's Extended Reconstructed Sea Surface Temperature, version 4](#)

Although the dynamics governing ocean temperatures can be complex, it appears that the combination of local conditions and large-scale climate processes superimposed to produce the extremely warm temperatures observed in Hawai'i in the summer of 2015. Here, we provide a descriptive and generalized explanation of this anomaly.

One source of variation in ocean temperatures is driven by the speed of the Subtropical Gyre, a ring-link system of ocean currents rotating clockwise across the North Pacific (Figure 2). Ocean currents in the Subtropical Gyre transport cooler waters from the northeast Pacific to the west and south, warming as it moves to the subtropical Pacific and the vicinity of Hawai'i. Similarly, warm water from the western subtropical Pacific is transported towards Japan, cooling as it moves northward. When the rotational speed of ocean currents in the Subtropical Gyre is accelerated, cool waters from the northeast take less time to reach Hawai'i, arriving cooler than normal, while the warm water in the western Pacific arrives warmer when it reaches Japan (Figure 3.4, Fast Gyre). Conversely, when the rotational speed of ocean currents in the Subtropical Gyre are slowed, cool waters from the northeast take more time to reach Hawai'i and, therefore, arrive warmer than normal (Figure 2, Slow Gyre).

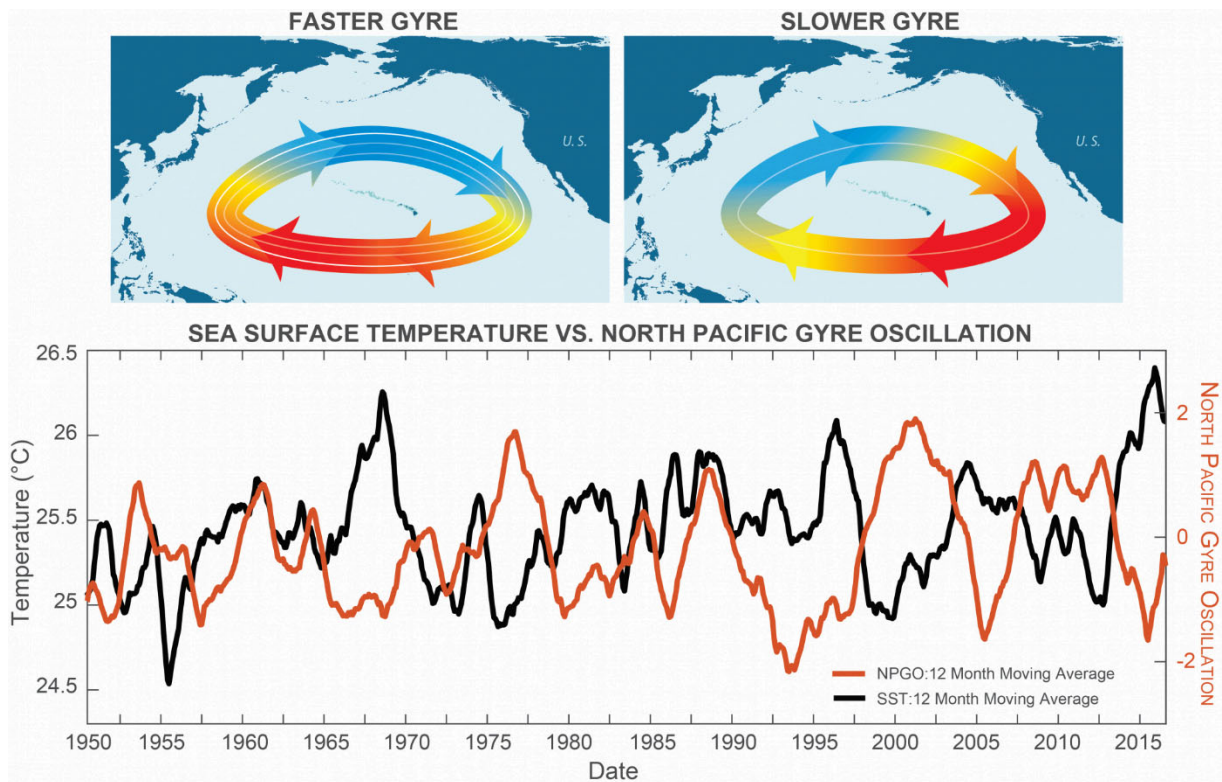


Figure 2:

Graphical representation of the North Pacific Subtropical Gyre, with faster (top left) and slower (top right) gyre rotations and corresponding differences in Pacific-wide sea surface temperature (top) with color gradient from blue (cold) to red (hot) (top). Twelve-month moving average of sea surface temperature for the main Hawaiian Islands (black line) and the North Pacific Gyre Oscillation (NPGO; orange line) from 1950 to 2016 (bottom). Negative NPGO values indicate a slower rotation of the Subtropical Gyre, resulting in warmer ocean temperatures. Data Sources: [Sea surface temperature, NOAA's Extended Reconstructed Sea Surface Temperature, version 4](#); [NPGO index, Di Lorenzo et al. \(2008\)](#).

The second major climatic driver of changes in ocean temperatures in Hawai'i is the Pacific Decadal Oscillation (PDO). The PDO is often described as a long-lived ENSO-like pattern of Pacific climate variability. As seen with the better-known ENSO, extremes in the PDO pattern are marked by widespread variations in temperature, wind patterns, ocean mixing, and biological productivity (Polovina et al. 1994). The extreme phases of the PDO have been classified as either warm or cool, defined by ocean temperature anomalies in the northeast and tropical Pacific Ocean (Figure 3).

OCEAN TEMPERATURE AND WIND ANOMALIES

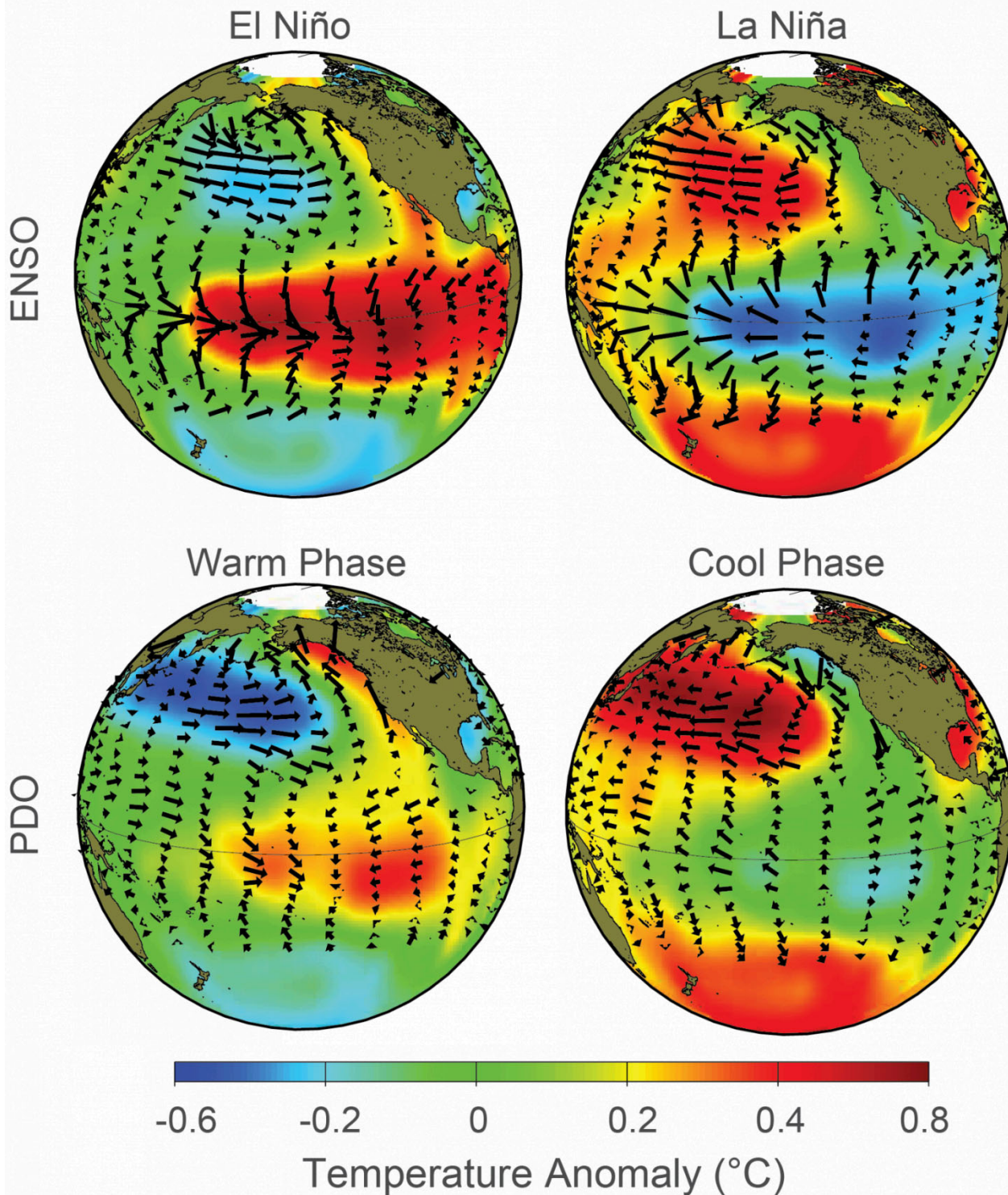
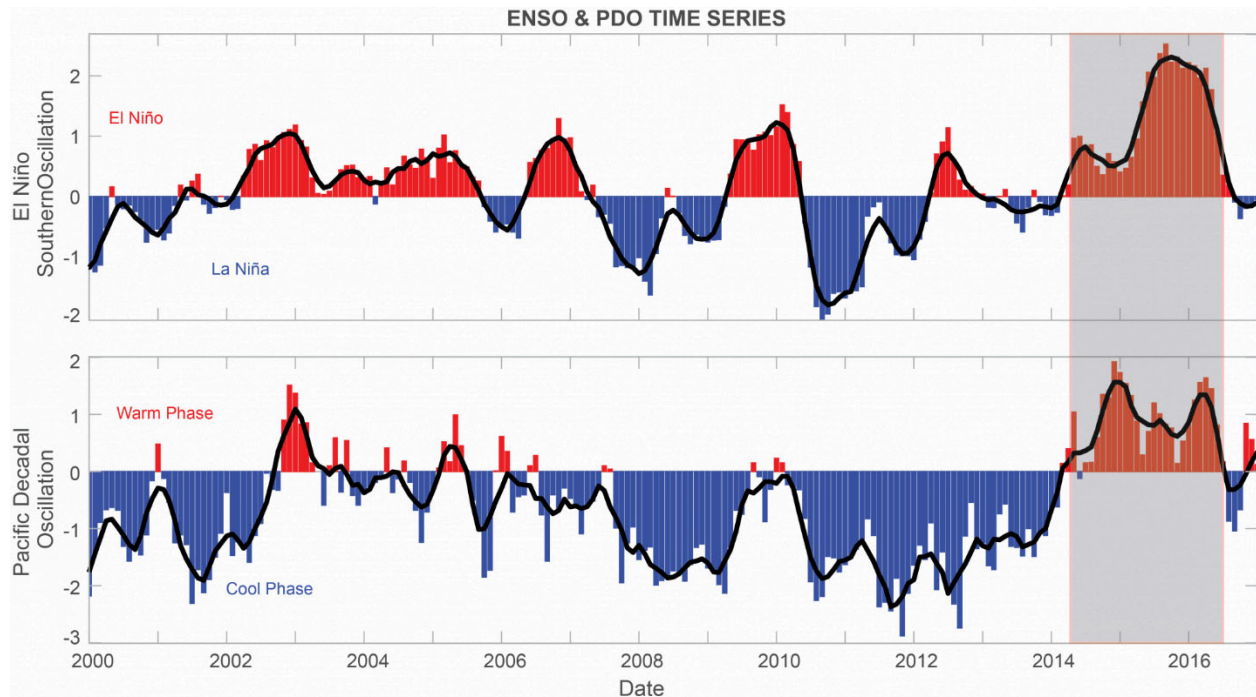


Figure 3: Typical sea surface temperature anomalies (color) and wind anomalies (black arrows) experienced during El Niño and La Niña (top left) and Warm and Cool Phases of the Pacific Decadal Oscillation (PDO, bottom left) across the Pacific Ocean. Graphic obtained from <http://research.jisao.washington.edu/data/pdo/> and presented here with permission.

In 2015, there was both a powerful El Niño and a warm phase of the PDO (Figure 4, ENSO & PDO Time Series), resulting in higher local ocean temperatures than either alone would typically produce. In 2014 and 2015, the equatorial and mid-latitude connection between the El Niño and warm phase of the PDO is thought to have been especially strong, resulting in the

largest marine heat wave (i.e., “The Blob”) ever recorded in the Northeast Pacific that caused enhanced ocean warming across the Hawaiian Islands (Di Lorenzo & Mantua 2016).



Figure

4: Indices representing the El Niño Southern Oscillation (ENSO), with El Niño and La Niña represented as red (positive) and blue (negative) values (top) and the Pacific Decadal Oscillation (PDO), with the warm phase and cool phase represented as red (positive) and blue (negative) values (bottom). The black line represents a 6-month moving average. The gray box is shown to highlight the relatively strong El Niño and warm phase in the PDO co-occurring in 2015. Data sources: [Multivariate ENSO Index was obtained from NOAA's Earth System Research Laboratory](#). The PDO index was obtained from [NOAA's Centers for Environmental Information](#).

On a local scale, variations in wind conditions likely exacerbated the warming induced by the large-scale climate processes previously described. When winds are weaker than normal, they decrease the intensity of ocean mixing, which reduces the amount of deeper, cooler waters reaching the surface ocean, and results in increased warming. Throughout August and early September of 2015, wind speeds were weaker than average over 80% of the time (Figure 5). During this same period, reef-level (10 m; 33 ft) temperatures from Lapakahi, located 16 km (~10 miles) north of Kawaihae, increased by over 2.5°C (4.6°F) (Figure 5). At the peak of the warming event, local wind speeds were equal to or stronger than the long-term average for more than two weeks, helping to mix the upper surface and drive down ocean temperatures, ultimately contributing to the end of the 2015 thermal stress event.

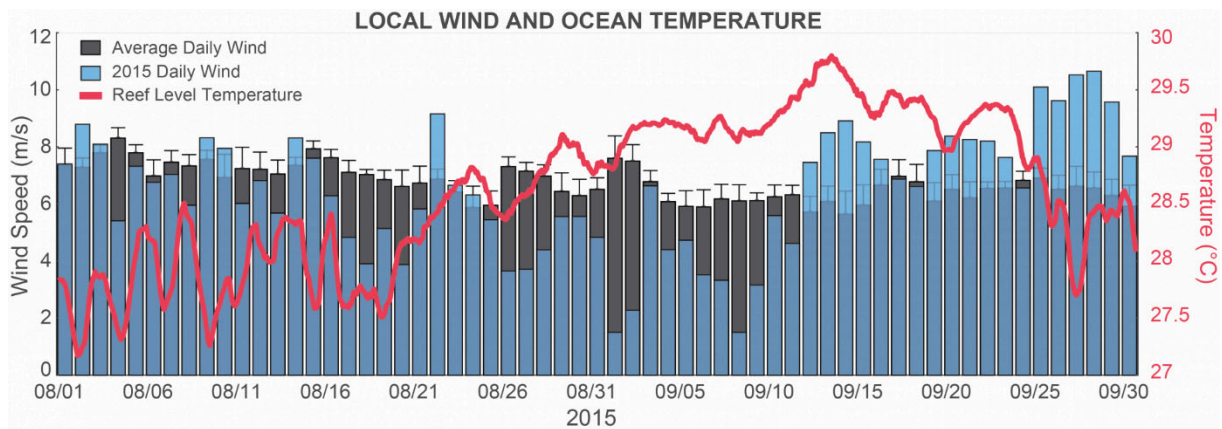


Figure 5.

Local wind and ocean temperature observed during the 2015 thermal stress event (August–September, 2015) in West Hawai‘i. Long-term (2009–2014) averaged daily wind speed (gray bars, error bars represent ± 1 standard deviation), daily wind speed (blue bars), and reef-level temperature (10 m; 33 ft) at Lapakahi, located approximately 16 km (10 miles) north of Kawaihae (red line), are shown. Data Sources: Daily wind is from NOAA’s ASCAT wind product, obtained from [NOAA’s Environmental Research Division Data Access Portal](#); reef-level temperature is from NOAA’s West Hawai‘i IEA.

Thus, the typical seasonal cycle, reduced wind conditions, and the combination of three major large-scale climate phenomena—NPGO, ENSO, PDO—all contributed to producing the highly anomalous warm ocean temperature around Hawai‘i in September 2015. Looking toward the future, ocean temperature in West Hawai‘i is projected to steadily increase as a result of climate change (Figure 6). By the middle of the century, average monthly SST will be about 1°C (1.8°F) warmer than present-day, and for about 6 months of the year will be warmer than the present-day average September SST (27°C; 80.6°F) (van Hooidonk et al. 2016). Further, it is likely the climate models used in these projections do not fully capture the large-scale climate variability—NGPO, ENSO, PDO—that influence SST and, therefore, may underestimate future ocean temperatures in West Hawai‘i.

<https://oceanwatch.pifsc.noaa.gov/>

Current Conditions & Tracking

- **Live Readings:** Real-time graphic visualizations and contour maps for Hawaiian regional waters are actively tracked via the [NOAA OSPO Sea Surface Temperature Charts](#).
- **Local Forecasts:** High-resolution regional modeling, graphs, and 7-day hydrodynamic forecasts around the islands are available through the [PacIOOS Water Temperature Forecast for Hawaii](#).
- **Seasonal Norms:** Temperatures bottom out around 76°F–78°F (24°C–26°C) in late winter (February/March) and peak around August and September. [1, 2, 3, 4, 5, 6]