No. S208181

IN THE SUPREME COURT OF THE STATE OF CALIFORNIA

CENTRAL COAST FOREST ASSOCIATION *et al.*,

Plaintiffs and Respondents,

v.

CALIFORNIA FISH AND GAME COMMISSION,

Defendant and Appellant.

On Review of the Decision of the Court of Appeal, No. C060569
Sacramento County Super. Ct. No. 07CS0085
Honorable Gail D. Ohanesian, Judge

OPENING BRIEF ON THE MERITS

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ISSUES PRESENTED FOR REVIEW

"[1.] Under the California Endangered Species Act, Fish and Game Code §§ 2050 *et seq.*, may the Fish and Game Commission consider a petition to delist a species on the ground that the original listing was in error?

"[2.] If so, does the petition at issue here contain sufficient information to warrant the Commission's further consideration?"

(Order Granting Petition for Review, Feb. 27, 2013, at 1 (emphasis added).)

Introduction

This is an action for writ of mandamus to compel further consideration of a petition filed by petitioners Central Coast Forest Association and Big Creek Lumber Company (plaintiffs and respondents below, hereafter "petitioners"). They seek to adjust the southern geographic boundary of the listing of coho salmon under the California Endangered Species Act (CESA). They contend, among other things, that the coho are not native to California streams south of San Francisco, a hundred years of failed hatchery experiments and other data confirming that they cannot establish wild, self-sustaining populations in this area.

Respondent California Fish and Game Commission (hereafter, the "Commission") initially rejected the petition on March 17, 2005, as failing to provide "provide sufficient information to indicate that the petitioned action may be warranted" (Fish and Game Code § 2074.2(a)(1)). (AR1/3:810.) Petitioners obtained a first writ of mandate which the

Commission did not appeal, but upon reconsideration, the Commission again rejected the petition on March 1, 2007, prompting the trial court to issue a second writ commanding the Commission to accept the petition pursuant to § 2074.2(a) and to proceed to further review as contemplated by § 2074.4 *et seq.*

The trial court granted the writ in a final judgment filed September 25, 2008. (ROA1025-26.[1]) Respondent California Fish and Game Commission timely appealed by Notice of Appeal filed November 24, 2008 (ROA1172), and the Court of Appeals filed an opinion reversing the trial court on December 14, 2013. Petitioners timely petitioned this Court for review on January 22, 2013, and this Court granted review, limited to the issues quoted above, by order filed February 27, 2013.

Statement of Facts

Plaintiffs have long been involved in fishery research and propagation activities,[2] and have even won awards for their environmental stewardship, including the prestigious Wildlife Conservation Achievement

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[1] The Commission designated the Superior Court file as the Record on Appeal. References to that record are designated as "ROA," followed by the page number.

[2] *See also Wall Street Journal*, "Even a Logger Praised As Sensitive to Ecology Faces Bitter Opposition", April 1, 1993; *Santa Cruz Weekly*, "Big Creek Lumber Seeks Special Consideration in Salmon Rules," June 19, 2009 (federal fisheries scientist notes that "in Big Creek Lumber's case, self-regulation works").

Award from the California Department of Fish and Game ("Department") in 1995. (AR1/3:727,[3] 756, 782) Their petition to redefine the geographic scope of the coho salmon "species" is perhaps the only endangered species act petition ever presented to the Commission which was supported by a peer-reviewed article in the *Fisheries* journal of the American Fisheries Society. (AR1/3:899-917.) Notwithstanding the peculiar technical arguments invented by the majority below, and the even more peculiar positions of the Commission, it was at all times obvious that the petition demonstrated at least that species redefinition "may be warranted" for purposes of requiring further review of the petition's claims.

A. Legal Background

Under CESA, the Commission is vested with the authority to establish and maintain a list of "endangered" and "threatened" species. Fish & Game Code § 2070. The Act defines an "endangered species" as any

> "native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant which is in serious danger of becoming extinct throughout all, or a significant portion, of its range due to one or more causes, including loss of habitat,

[3]The certified administrative record for the case consists of four parts. Parts I through III consisted of 12 bound volumes entitled "Administrative Record Concerning Rejection of Petition to Delist Coho South of San Francisco." Part IV of the record, with 13 bound volumes, consists of the certified record concerning the prior listing decision. Parts I through III of the record are cited as "AR1," and Part IV is referred to as "AR2," followed by the volume and page numbers.

> change in habitat, overexploitation, predation, competition, or disease."

Id. § 2062. A "threatened species" is defined in similar fashion, except that "although not presently threatened with extinction, [it] is likely to become an endangered species in the foreseeable future in the absence of the special protection and management efforts required by this chapter." *Id.* § 2067. The Act prohibits the "take" of any endangered or threatened species, *id* § 2080, with "take" defined as to "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." *Id.* § 86.

Any interested person may petition to list or delist any species. *See id.* § 2071. Within 90 days of receipt of a petition, the Department must recommend to the Commission whether the petition contains sufficient information to indicate that the petitioned action may be warranted. *Id.* § 2073.5. This case concerns a petition rejected by the Commission in this initial review pursuant to § 2074.2(a)(1).

If the Commission accepts the petition, "all reasonable attempts shall be made to notify affected and interested parties and to solicit data and comments on the petitioned action from as many persons as is practicable". *Id.* § 2074.4. The Department is charged to "commence a review of the status of the species concerned in the petition," and recommend within 12 months whether the petitioned action, in light of the best available scientific information, is warranted. *See id.* § 2074.6. Upon receipt of the

Department's recommendation, the Commission must then make the final determination whether to proceed with the petitioned action. *Id.* § 2075.5. If the Commission determines that the petitioned listing or de-listing is warranted, it must then issue a notice of proposed rulemaking in anticipation of the adoption of a regulation listing or de-listing the species. *See id.* § 2075.5(2).

B. Procedural History

As the majority opinion below emphasized, the Commission had initially listed coho salmon south of San Francisco in 1995 as a "species" on the basis of a status report by the Department which concluded:

> "These southernmost populations experience and respond to the unfavorable, adverse environmental conditions associated with the fringe of any distribution. In such areas, environmental conditions can become marginal, harsh or extreme for coho survival and, *presumably*, these southernmost populations have adapted to the less-than-optimal environments." (*Quoted in* ROA563: BX10,[4] at 47; emphasis added.)

As set forth below, plaintiffs ultimately discovered that the presumption of the Department and Commission was simply wrong; in fact, the only reason coho populations were present at all south of San Francisco was by virtue of

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[4] Because of potential page numbering problems with the Record on Appeal, we include where appropriate a parallel cite to the primary factual submission before the Superior Court, exhibits to the Declaration of James L. Buchal filed February 4, 2008, designated as "BX".

repeated artificial propagation, which whenever halted led to rapid extirpation, because this "fringe" habitat was entirely unsuitable for coho.

By 2002, the Commission had completed a second status report which also proceeded on the false premise that the native range of coho salmon extended below San Francisco. It appears that the Commission did not get around to implementing the 2002 status review until August 2004. *See California Forestry Ass'n v. California Fish & Game Comm'n* (2007) 156 Cal.App.4th 1535, 1544.

On June 17, 2004, plaintiffs Central Coast Forest Association and Big Creek Lumber Company submitted their Petition to redefine the southern boundary for CESA protection of coho salmon to the Department. (AR1/3:828-896.) Plaintiffs lodged further materials in support of the Petition with the Commission on January 26, 2005 (ROA517-71: BX10), and on February 3, 2005 lodged the testimony of an independent, certified, Ph.D. fisheries scientist Dr. Victor Kaczynski (AR1/3:785-798).

Among other things, the petition, as supplemented, demonstrated that:

- Freshwater and ocean survival statistics prove that the coho cannot establish self-sustaining populations south of San Francisco (*see infra* Point II(B)(1));

- The streams south of San Francisco frequently have sandbars blocking salmon migration entirely, and the drier and "flashier" nature of precipitation south of San Francisco, widely noticed in the scientific literature, is widely recognized to impair coho survival (*see infra* Point II(B)(2));
- a century of attempts to establish self-sustaining hatchery populations had failed (*see infra* Point II(B)(3));
- all available scientific and popular literature prior to the establishment of hatcheries in the early 1900s recognized that coho were not native to the area (*see infra* Point II(B)(4));[5] and
- extensive archeological investigation failed to identify the presence of coho bones in Native American middens south of San Francisco, though steelhead bones were often found (*see infra* Point II(B)(5)); and
- plantings of coho injured fragile listed native steelhead populations (*see infra* Point II(D)).[6]

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[5] After the petition was filed, certain dubious specimens of fish, allegedly gathered in 1895, were re-identified as representing coho presence south of San Francisco, an event that does not constitute conclusive, if indeed any, evidence that the fish were native to the area. (*See infra* Point II(B)(6).)

[6] After the petition was filed, scientists purported to discover a coho bone in the remains of an ancient Native American *ocean* fishing camp on Año Nuevo Point, a finding that has no bearing on whether coho were native to rivers south of San Francisco. (*See infra* Point II(B)(5).)

As a matter of historical accident, the petition, lodged on June 17, 2004, slightly preceded the Commission's final 2004 decision expanding the coho "species" to a larger unit termed "central coast coho". But the Commission did not address the allegations of the petition in its 2004 final decision; at all relevant times it responded to the petition as representing an entirely separate proceeding.

On March 17, 2005, the Commission issued written findings rejecting the Petition. (AR1/3:810-815.) The Commission responded to the petition on the merits, declaring that "all recent genetic analyses support the genetic distinctiveness of coho salmon from [creeks south of San Francisco]." (AR1/3:814.) The Commission did not suggest that it was without legal power to grant the petition because petitions could not point out errors in a listing, nor did the Commission argue that plaintiffs were required to present their evidence exclusively during the 1995 or 2004 rulemaking processes.

In response to the Commission's rejection of the petition, plaintiffs filed their initial suit on December 5, 2005. On September 26, 2006, the Superior Court overturned the Commission's rejection of the Petition. *Central Coast Forest Association and Big Creek Lumber Company v. California Fish & Game Commission*, Case No. 05CS01617 (Sac. Cty. Sept. 22, 2006). On November 22, 2006, the Superior Court issued a writ

of mandate to the Commission directing it to reconsider its rejection of the Petition. The Commission did not appeal the decision.

In connection with the Commission's renewed consideration, plaintiffs supplemented the petition with substantial new expert analyses of "the most up-to-date and reliable survival data" (ROA206: BX34, at 17) and other new information. By this time, it had become apparent that the Department's own estimates of coho freshwater and ocean survival proved that no self-sustaining wild coho populations could persist in the area. (AR1/3:973-975; *see generally* petitioner's Opening Brief at 15-19 (reviewing evidence).) Plaintiffs' research efforts culminated in an August 2006 article in *Fisheries* magazine, a peer-reviewed publication of the American Fisheries Society, which supported the allegations of the petition, and was also lodged in support of the petition. (ROA633-50.)

Because the Department and Commission had placed weight in 2002 upon genetic testing of California coho populations, plaintiffs also supplemented their petition with a far more thorough and comprehensive genetic analysis completed in October 2005 by the National Oceanic and Atmospheric Administration. (ROA598-621: BX15, at 1-24.) This evidence is discussed at length in the Brief of Respondents, Oct. 1, 2009, at pp. 49-54.

After an extraordinarily unfair process that even involved the

unlawful destruction of documents,[7] the Commission held that "the Petition to delist Coho Salmon South of San Francisco does not provide sufficient information to indicate that the petitioned action may be warranted [and] denied the petition". (Supplemental Return to the Writ, March 8, 2007.)

Again the Commission made no argument that any of the information supplied could only have been presented in the 1995 or 2004 listing proceedings. The Commission did, however, for the first time take the position that it was powerless, as a matter of law, to grant the relief requested, no matter what the factual showing in the petition.

Plaintiffs returned to the Superior Court, which in a thorough and well-reasoned opinion (ROA1012-1017), *again* found the Commission's rejection of the Petition as unsupported by substantial evidence in light of the whole record (ROA1015), and also noted that it was unclear that the Commission had even employed the correct legal standard to evaluate the

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[7] The Commission's conduct is detailed at pp. 7-10 of the Brief of Respondents, Oct. 1, 2009, and included improper attempts to refute the allegations on the merits. As several federal district courts have explained, "those petitions that are meritorious on their face should not be subject to refutation by information and views provided by selected third parties solicited by FWS [the U.S. Fish and Wildlife Service]". *Center for Biological Diversity v. Morgenweck*, 351 F. Supp.2d 1137, 1143 (D. Colo. 2004); *see also Colorado River Cutthroat Trout v. Kempthorne*, 448 F. Supp.2d 170, 175-77 (D.D.C. 2006) (setting aside rejection of petition because the Service "solicited information from limited outside sources"); *see also Western Watersheds Project v. Hall*, 2007 WL 2790404, *6 (D. Idaho 2007).

petition (ROA1013). Accordingly, a second writ of mandate issued compelling the Department to "accept Petitioners' delisting petition pursuant to § 2074.2(a) of the Fish and Game Code, and to proceed to further review as provided in §§ 2074.4 *et seq.* . . ." (ROA1033-1034.)

This time, the Commission appealed. Following the completion of briefing, the Court of Appeals apparently invented *sua sponte* a new and even more far-reaching defense, and sought further briefing on it. (*See* Letter, Court of Appeal to Litigants, Jan. 27, 2012.) Following such briefing, the Court of Appeals adopted the defense, and even overruled its own prior case invoking § 1094.5 of the Code of Civil Procedure to applying a "substantial evidence" test to the rejection of CESA petitions at the threshold stage of review. (Slip op. at 14-15 n.11.)

Summary of Argument

The whole rulemaking design of the statute is based upon the premise that the listed status of a species is subject to change, and represents a policy decision based on an ever-expanding pool of knowledge concerning species status. Like any rule, a listing decision can and should always be subject to legislative revision in the light of new evidence.

Doctrines of administrative finality arising from quasi-judicial proceedings have no application to apply to Commission rulemaking proceedings. Certainly one cannot file a petition asserting merely that an

initial listing decision was wrong based on the record before the Commission; review of such claims is proper only by direct review of the listing decision. But petitioners are free, consistent with the statutory design, to present a petition alleging, in substance, that the Commission's prior findings need to be reconsidered in light of new evidence. Any delisting petition revisits a prior conclusion of endangered or threatened status.

The need for reconsideration is particularly appropriate where, as here, the Commission is operating outside the statutory framework of simply adding a recognized "species" or "subspecies" to a list, and undertaking to exercise authority to list tiny segments of a much, much larger and healthy population—one can, after all, buy the coho salmon "species" in a supermarket for consumption. No provision of law expressly authorizes the Commission to list tiny subgroups of species or subspecies, and no provision of law expressly forbids petitioners from bringing the Commission's species definition error to its attention.

Petitioners presented the only delisting petition which had been published in a peer-reviewed scientific journal, and easily met the somewhat lenient standard of showing "a substantial possibility" that the action might be warranted. *Center for Biological Diversity v. California Fish & Game Comm'n*, 166 Cal.App.4th 597, 611. They demonstrated that

the coho are not native to the area south of San Francisco, and cannot possibly establish self-sustaining wild populations there because of adverse conditions. Foolish attempts to do so merely waste scarce conservation resources and injure genuinely native wild fish.

Argument

I. THE COMMISSION MAY CONSIDER PETITIONS TO DELIST A SPECIES ON THE GROUND THAT THE ORIGINAL LISTING WAS IN ERROR.

This Court's grant of review does not distinguish among types of "error" that the Commission may commit. The fundamental finding made by the Commission was that some group of coho (which changed from time to time) was

> ". . . a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant which is in serious danger of becoming extinct throughout all, or a significant portion, of its range due to one or more causes, including loss of habitat, change in habitat, overexploitation, predation, competition, or disease."

(Fish and Game Code § 2062 (definition of "endangered species").

One type of error would be an erroneous decision made on the basis of the record before the Commission at a particular instant in time, *e.g.*, a lack of substantial evidence in that record to support a factual finding of endangerment. But the type of error involved here is different: the factual findings made by the Commission are wrong on the basis of what we now know. We now know not only things that might have been unearthed

before the prior listing decisions (but weren't), but also additional scientific information discovered since the prior listing decisions.

Under the rule of law now sought by the Commission, any and all error in the initial listings is irrelevant: only if the continued existence of a "species" as erroneously defined is no longer threatened may the Commission take any action to change prior listing decision. No such substantive limit on delisting petitioners appears in CESA, and to the extent that such a position is set forth in the Commission's regulations implementing CESA, those regulations are not consistent with the purposes of the statute and cannot stand. Nor should any doctrines of administrative finality bar the Commission from correcting errors in its listings when brought to the Commission's attention by petition.

A. The Standard of Review.

The first issue certified by this Court is fundamentally a question of statutory interpretation, and "questions of statutory interpretation are questions of law warranting independent review" in § 1094.5 proceedings, *Medical Board v. Superior Court* (2001) 88 Cal.App.4th 1001, 1008. For purpose of evaluating the persuasiveness of the Commission's position that its authority with respect to delisting petitions is limited, it is important to understand that the position developed only on appeal, and after the trial court's second writ; the Commission's initial denial of the petition made no

reference to any such limitations. (*See generally* AR1/3:810-15.)

B. The Language and Structure of CESA Do Not Restrict the Commission's Powers to Consider Delisting Petitions.

As a general matter, the right of the people to "petition government for redress of grievances" is universally recognized as one of the most important fundamental rights. *Compare* Cal. Const. art. 1, § 3 *and* U.S. Const. amend. I. In this context, the legislature decreed that any "interested person may petition the commission to add a species to, or to remove a species from either the list of endangered or the list of threatened species". Fish and Game Code § 2071.

The statute is perfectly symmetric as far as both listing and delisting petitions are concerned:

> "§ 2070. The commission shall establish a list of endangered species and a list of threatened species. The commission shall add or remove species from either list if it finds, upon the receipt of sufficient scientific information pursuant to this article, that the action is warranted.
>
> "§ 2071. The commission shall adopt guidelines by which an interested person may petition the commission to add a species to, or to remove a species from either the list of endangered or the list of threatened species."

The Legislature's manifest concern is that sufficient scientific information support whichever determination the Commission makes, to list or delist, and to that end the Legislature gave specific guidance containing the contents of a petition—with the same information deemed relevant to both

listing and delisting petitions:

> "§ 2072.3. To be accepted, a petition shall, at a minimum, include sufficient scientific information that a petitioned action may be warranted. Petitions shall include information regarding the population trend, range, distribution, abundance, and life history of a species, the factors affecting the ability of the population to survive and reproduce, the degree and immediacy of the threat, the impact of existing management efforts, suggestions for future management, and the availability and sources of information. The petition shall also include information regarding the kind of habitat necessary for species survival, a detailed distribution map, and any other factors that the petitioner deems relevant."

The Department of Fish and Game is bound by these same standards in whatever recommendation it might make. *See* § 2072.7.

Once a petition is received, the statute requires the Commission to "consider the petition, the department's written report, and comments received, and the commission shall make and enter in its public record one of the following findings:

> "(1) If the commission finds that the petition does not provide sufficient information to indicate that the petitioned action may be warranted, the commission shall publish a notice of finding that the petition is rejected, including the reasons why the petition is not sufficient.
>
> "(2) If the commission finds that the petition provides sufficient information to indicate that the petitioned action may be warranted, the commission shall publish a notice of finding that the petition is accepted for consideration. . . ." (§ 2074.2(a).)

In this case, the Commission chose option (1), rejecting the petition; petitioners seek the further review pursuant to option (2).

In addition to the statute being symmetric between listing and

delisting decisions, the statute also contemplates that none of the decisions are final, but always subject to revision in light of increasing scientific understanding. For example, the Department of Fish and Wildlife may recommend to the Commission that it delist a species at any time. (*Id.* § 2072.7.) In general, the Commission's decisionmaking is to be based on "the best scientific information available" (*id.* §§ 2074.6 & 2077), language that reflects Legislative recognition that information and scientific understanding were subject to change, and that the Commission's decisions ought to evolve along with scientific understanding.

The Department is required to review listed species every five years "to determine if the conditions that led to the original listing are still present". *Id.* § 2077. The majority below relied on this language, holding that it was "directed to the present conditions of the species and does not relate to the conditions upon which a prior decision of the Commission was based". (Slip op. at 15.) The majority interpreted this language to mean that after a listing, all further consideration was "limited to the 'present' condition of the species". (*Id.* at 16.)

At the outset, this language, is directed specifically at the Department, and does not purport to limit the Commission's powers generally or the content of petitions. To suggest that only the "present condition of the species" is relevant as a general matter is not a reasonable

interpretation of the language in light of the statutory purposes of CESA.

CESA does not purport to limit the application of advances in scientific understanding in any way. Certainly the Commission has never considered this language to limit its discretion to reconsider species definition in any way. *If the statute in fact "locked in" species definition, the coho south of San Francisco would still be their own "species."* Put another way, if the Commission can lump two species together later on, it can also split them into separate units for analysis, as petitioners seek.

The proposition that the Legislature intended to restrict the Commission's power to correct its own errors ought to be regarded with skepticism. "Any deliberative body—administrative, judicial, or legislative—has the inherent power to reconsider an action taken by it unless the action is such that it may not be set aside or unless reconsideration is precluded by law". *In re Fain* (1976) 65 Cal.App.3d 376, 389. Given the general directives for CESA decisionmaking based evolving scientific information, no policy in favor of preserving error can be found in the CESA. The general goals of protecting listed species cannot be stretched to protect species listed by mistake, particularly where, as here, the listing will operate to the detriment of properly listed species. (*See* Point II(D) *infra.*)

C. The Commission Cannot by Regulation Restrain Citizen Petitions Bringing Error to its Attention, and Did Not Do So Here.

The Commission has enacted regulations (Cal. Code Regs., Tit. 14, § 670.1), upon which the majority below also relied to find that any delisting petition must be "directed to events that occur after the listing of the species" (Slip op. at 15), therefore preventing the Commission from reconsidering any error. Even if petitions were in fact limited to "post-listing events," both the discovery of additional pre-existing information concerning the species, not considered in the listing decision, and the development of new information are "events that occur after the listing".

For example, subsequent to the 2004 listing, an extraordinarily-extensive study of the genetics of California coho salmon became available which undermined entirely the premise that the coho south of San Francisco were properly considered part of some larger coho ESU. So too did additional information concerning coho survival rates.

The regulation, § 670.1(i)(1)(B), provides

> "A species may be delisted as endangered or threatened, as defined in §§ 2062 and 2067 of the Fish and Game Code, if the Commission determines that its continued existence is no longer threatened by any one or any combination of the factors provided in subsection (i)(1)(A) above."

The regulation is simply silent on the underlying question presented by this appeal. Whatever standards may apply for completely removing a "species"

from the list, this case concerns whether the Commission has power to reconsider the scope of a "species" definition in a fashion that "delists" only a portion of the previously-defined species. Because the regulation was not crafted to address such questions, and does not by its terms cover this situation (no one is seeking the complete removal of any "species" from any list), it was error for the Commission and the Court of Appeals to suggest that this regulation by its terms limited the Commission's power.

Moreover, the regulation contradicts the statute. The subsection (i)(1)(A) factors to which it refers are: "(1) Present or threatened modification or destruction of . . . habitat; (2) Overexploitation; (3) Predation; (4) Competition; (5) Disease; or (6) Other natural occurrences or human-related activities." These factors represent only a subset of the factors made relevant by the statute (*see* Fish and Game Code § 2072.3), and omit factors critical in this case: "range," "distribution," and "information regarding the kind of habitat necessary for species survival" (*id.*). The Commission cannot arbitrarily trim from consideration the factors that the Legislature regarded as the "at a minimum" factors for consideration. (*Id.*)

To the extent the regulation is read to limit a petitioner to presenting only information about changes in species numbers, habitat, etc. after the listing—it is invalid. As the dissent noted, "[a]dministrative regulations

that alter or amend the statute or enlarge or impair its scope are void and courts not only may, but it is their obligation to strike down such regulations." (Dissent at 3 (quoting *Yamaha Corp. of America v. State Board of Equalization* (1998) 19 Cal.4th 1, 16 (Mosk, J., concurring).) In addition, as the dissent explained, "limiting delisting to when a species is no longer threatened arbitrarily limits the Commission's statutory authorization to delist whenever it is warranted." (*Id.*)

In telling the Commission to accept petitions where the petitioned action "may be warranted" (Fish and Game Code §§ 2073.5, 2074.2), the Legislature necessarily contemplated that the Commission would consider the lawfulness of its listing decision. Where the Commission errs in making a listing, it is not authorized to regulate the listed species and its habitat under CESA. Species definition is a threshold responsibility under the statute; one cannot determine whether the "continued existence" of a "species" is "no longer threatened" within the meaning of the regulation if the new information shows they had no "continued existence" in the first place. There is no principled reason for the Commission to insist that it may disregard errors in the exercise of its authority brought to its attention by a petition.

The federal delisting regulation specifically provides that "[s]ubsequent investigations may show that the best scientific or

commercial data available when the species was listed, or the interpretation of such data, were in error". 50 C.F.R. § 424.11(d)(3). While such a provision is not expressly written in the state regulation, § 670.1(i)(1)(A), it is simply not reasonable to construe the regulation to forbid consideration of such circumstances.

D. Limiting Consideration of the Commission's Errors Undermines the Purposes of CESA.

A rule limiting consideration of prior errors is not "reasonably necessary to implement the purpose of the statute" (*Yamaha*, 19 Cal.4th at 11), and is in fact here contrary to the statutory purpose. The status of a "species or subspecies," however broadly defined, is to be evaluated by reference to its "range". That "range" can only be understood by reference to some historical geographic area from which the species has been eliminated, or is in "serious danger" of elimination, by a relevant "cause". *Listing fish outside their native range is thus a threshold error in striking contradiction to the very definition of "endangered species".*

Two "causes" of decline related to habitat are listed in § 2062: "loss of habitat" and "change in habitat". These causes are echoed in the opening policy statement to the Act in § 2051(b), which expresses concern that fish and wildlife are threatened because, among other things, "their habitats are threatened with destruction, adverse modification, or severe curtailment".

By contrast, the inherent unsuitability of particular habitat is not properly understood as a cause of extinction; it is properly understood as why a species is not found in that geographic area. Significantly, in § 2072.3, petitions are supposed to include "information regarding the kind of habitat necessary for species survival". There can be no dispute that the Petition focused on this question, demonstrating that the area south of San Francisco simply does not provide the kind of habitat necessary for species survival because of broader climatic conditions, including low flows producing sandbars blocking salmon migration and stormburst events washing out salmon redds. The habitat is some of the "most pristine, healthy coastal watersheds" in California (AR1/3:852; *see also id.* at 879), but it is just not suitable for coho.

The Legislature plainly wanted the Commission to distinguish between habitat degradation endangering a species, and areas of unsuitable habitat that are outside the "range" of a species within the meaning of § 2062. The Legislature never contemplated that the unsustainable status of a species in unsuitable habitat should be construed as *requiring* the listing of such a species as a matter of law. To the contrary, the whole idea is to recover species in suitable habitat, as set forth in § 2061, which declares an intent to use "all methods and procedures which are necessary to bring any endangered species or threatened species to the point at which the measure

provided pursuant to this chapter are no longer necessary". As far as coho are concerned, that can never occur in the area south of San Francisco.

To make matters worse, while a purpose of CESA is to protect habitat, *see* Fish & Game Code § 2052, "listing coho south of San Francisco actually shifts conservation resources away from the most degraded areas" (AR1/3:852); funds spent south of San Francisco are diverted from other areas with greater needs. This Court may take judicial notice that conservation resources are finite, and a waste of finite conservation resources is inimical to the objectives of CESA.

Finally, as explained below, evolving scientific understanding tells us that strip-mining scarce coho north of San Francisco into a black hole of doomed hatchery planting attempts cannot possibly protect the species as a whole. Indeed, disadvantaging wild stocks for the benefit of foolish hatchery experiments is directly contrary to CESA's protection of "wild fish," as opposed to hatchery fish. *See* Fish and Game Code § 47 (defining "fish" as "wild fish"). As the Court of Appeals has explained, "the Legislature intended that "wild fish," as opposed to hatchery fish, be protected under the CESA". *California Forestry Ass'n v. California Fish & Game Commission* (2007) 156 Cal.App.4th 1535, 1552.

E. Limiting Consideration of Errors with Respect to the Commission's Ill-Defined Power of Species Definition Would Be Particularly Inappropriate.

Viewed as a whole, the coho salmon *species* is in no danger of extinction, being quite common and subject to heavy commercial harvest in areas north of California, with the greatest abundance in North America extending from Alaska to the State of Washington. (*See* AR1/3:835, 840.) There are thousands of populations of coho salmon stretching from northern California around the Pacific rim to Siberia.

In considering the natural range of a species, it is important to understand that:

> ". . . metapopulations are not static. Barring the presence of a relatively permanent geographic feature, metapopulation range boundaries are constantly shifting due to the natural extinction and colonization of marginal populations. Furthermore, the edges of geographic ranges are set by ecological limiting factors that determine local distribution and abundance. The most relevant and commonsensical feature of geographic ranges is that abundance of individuals tends to be low near the boundaries of the range. Essentially, it is entirely reasonable to expect populations on the fringes of a range to be smaller, more susceptible to demographic and environmental stochasticity, and thus more likely to become locally extirpated." (AR1/3:858 (citation omitted).)

This lawsuit concerns coho populations south of San Francisco, in San Mateo and Santa Cruz Counties. While the parties dispute whether these areas are at or beyond the historic range of the species, the Commission agrees that the coho in these areas are at the extreme southern edge of the natural range of the coho. And the Commission agrees that since this

region is at the southern edge of the coho salmon range, local populations experience "unfavorable, adverse environmental conditions associated with the fringe of any population". (AR1/3:879.)

The principal disagreement between the petitioners and the Commission is whether the coho now present in the area were the product of hatchery introductions and frequent restocking after such extirpations, or whether there has been such a continual natural presence of the fish in the area that they constitute a "native species" within the meaning of the CESA.

In passing CESA, the Legislature noted that that "[c]ertain species of fish, wildlife and plants have been rendered extinct . . ." (Fish & Game Code § 2051(a)), and expressed a policy that agencies avoid activities "which would jeopardize the continued existence of any endangered species . . ." (*id.* § 2053; emphasis added). In short, the Legislature manifestly intended that the powerful strictures of the CESA be invoked only when there was a serious risk of utterly exterminating a species or subspecies "throughout all, or a significant portion, of its range" (*id.* § 2062).

From this perspective, the Commission's decision in 1995 to single out a handful of populations beyond the extreme southern end of the native range of coho for listing as "endangered" was a radical step. To take this action, it was necessary for the Commission to assert, and the courts to

endorse, the power to list fish not constituting a "species" or "subspecies" in any conventional or commonsense way.

Notwithstanding CESA's limitation to "species" and "subspecies," the Commission previously persuaded the Court of Appeals that it had discretion to list (or not list) any particular subgroup of animals as a "species" within the meaning of the Fish and Game Code. The Commission did so by reference to what the Court of Appeals called the Commission's "longstanding adherence to the policy that the CESA allows listings of evolutionarily significant units." *CFA*, 156 Cal.App.4th at 1546. The Commission defended such a power by reference to a federal policy developed to focus administrative discretion in exercising express statutory authority under the federal Endangered Species Act for listing "distinct population segments" of larger species. 16 U.S.C. § 1532(16) (defining "species").

Specifically, the federal government has through formal notice and comment procedures, outside any particular listing decision, promulgated what it calls the "evolutionarily significant unit" ("ESU") approach to determining whether any particular group of animals qualifies for protection. The cornerstone of this federal policy is that to list a group of animals as an ESU, two findings are required: "(1) It must be substantially reproductively isolated from other conspecific population units; and (2) It

must represent an important component of the evolutionary legacy of the species." 56 Fed. Reg. 58,612, at 58,618.

Salmon tend to return to their native streams or rivers, but significant straying rates cast doubt upon the first criterion of reproductive isolation. The primary dispute in this case involves the second criterion, as there is no evidence that coho south of San Francisco represent an "important component" of the coho species. An ephemeral local population that can only persist south of San Francisco with constant hatchery supplementation because natural habitat conditions inevitably wipe them out cannot possibly be "an important component of the evolutionary legacy of the species." *See id.* ("if the population became extinct, would this event represent a significant loss to the ecological/genetic diversity of the [entire coho salmon] species?"); *see also id.* at 58,616 ("loss of isolates . . . would generally not represent an irreversible loss of genetic diversity because most of the genetic diversity . . . would still reside in the parent population").[8]

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[8] When Congress was considering whether to give federal regulators ESU listing authority, the General Accounting Office warned that the squirrels in a single park might be listed (*see* S. Rep. No. 96-151, 96th Cong., 1st Sess. 7 (1979)); the federal ESU policy's insistence upon the listed group represent an important component in the evolutionary legacy of the species was intended, in part, to respond to that criticism. NOAA Technical Memorandum, "Definition of "Species" under the Endangered Species Act: Application to Pacific Salmon" (Mar. 1991) (http://www.nwfsc.noaa.gov/publications/techmemos/tm194/waples.htm). There is no indication that the California Legislature ever considered

Before the Court of Appeals in this case, the Commission's brief on one hand asserted that its coho listing decisions were "[p]aralleling the federal approach" (Appellant's Br. at 14). But the Commission also denied entirely that it follows the federal definition of an ESU. (Appellant's Br. at 26 n. 7.) Contrary to its position in *CFA*, the Commission now appears to articulate the view that an "evolutionarily significant unit" need not be *significant* at all. (*Id.*) This position undermines entirely the Court of Appeal's earlier rationale in the *CFA* case for granting the Commission the power to list groups of animals that may be far less extensive than a "species".

The *CFA* court approved listing of groups of coho salmon smaller than a subspecies because the Commission then "believed such listings were integral to maintaining the diversity of the species and therefore to protecting the species as a whole". *CFA*, 156 Cal.App.4th at 1546. No such finding can credibly be made with respect to the coho south of San Francisco, and it now appears the Commission wishes to define "evolutionarily significant unit" as *any* unit.

Assuming *arguendo* that the Commission may range far beyond the language of the statutes and regulations to assert virtually unlimited power

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granting the Commission the power to list groups of animals that did not constitute an "entire" species.

to define any particular group of animals as a "native species" under CESA,[9] the Commission cannot first seize such power and then assert it to be so limited that species definitions can never be reconsidered. If the Commission may range beyond the written law to grant CESA protections on an *ad hoc* basis, it is particularly important to allow petitions in response to such action pointing out the Commission's errors.

The Commission's ever-changing views of its listing powers and responsibilities confirm the desperate need for this Court's guidance on the fundamental questions presented. The Commission has never conducted any formal rulemaking process concerning any of these questions, instead stumbling from listing decision to listing decision and articulating arbitrary litigation positions. If the Commission's *ad hoc* decisions once made can never be reconsidered in light of advances in scientific knowledge, the purposes of CESA will be utterly subverted.

F. Doctrines Providing Finality to Certain Administrative Decisions Cannot Foreclose the Commission's Consideration of Delisting Petitions.

The Commission has urged application of *res judicata* arising from the exercise of quasi-judicial authority by an administrative agency. Such

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[9] This would be an appropriate case for this Court to exercise its power under Rule 8.516(b)(2) to reconsider this issue, as neither "species" nor "subspecies" could properly be viewed as "ambiguous in the context of the CESA". *CFA*, 156 Cal.App.4th at 1545.

solicitude for finality is manifestly inappropriate in the context of a statute that calls for repeated application of the best available scientific information. Moreover, while there are aspects of the Commission's CESA rulemaking that are quasi-judicial in nature, its promulgation of the coho listings set forth by rule at 14 Cal. Code Regs. § 670.5 did not constitute a process so judicial in nature that the common law of *res judicata* and collateral estoppel should be applied to those who lodge comments in such rulemaking processes. No case of which petitioners are aware has done so.

1. The Commission's coho rulemaking is legislative in nature, not judicial.

Though it cannot be denied that the Commission received evidence and exercised its discretion to issue its 1995 and 2004 coho rules, it did so in a fashion similar to a legislature, not a court. As this Court long ago explained,

> "It does not follow, however, that legislative bodies or administrative agencies or municipal organizations or executive officials by the mere employment of methods of procedure which resemble those employed or required in judicial tribunals must be held to be engaged in the exercise of a judicial function . . . There has been some confusion in judicial decisions touching this subject which it is beyond the scope of our present inquiry to clear away, but it may not be inapt at this point to refer to the comment of Cooley in his great classic on Constitutional Limitations, wherein, after reviewing many authorities, he draws the conclusion, '*That which distinguishes a judicial from a legislative act is that the one is a determination of what the existing law is in relation to some existing thing already done or happened, while the other is a predetermination of what the law shall be for the regulation of all future cases* falling under its provisions.'"

In re Application of Battelle (1929) 207 Cal. 227, 242 (emphasis added); *see also Strumsky v. San Diego County Employees Retirement Ass'n* (1974) 11 Cal.3d 28, 35 n.2 ("Generally speaking, a legislative action is the formulation of a rule to be applied to all future cases, while an adjudicatory act involves the actual application of such a rule to a specific set of existing facts.") A listing decision is a rule of protection for future cases.

It is true that the Commission's initial review of the adequacy of a petition under § 2074.2 is probably quasi-judicial in nature. *See Natural Resources Defense Council [NRDC] v. Fish and Game Comm'n* (1994) 28 Cal. App.4th 1103, 1116 n.10.[10] But the decisions granting further review to prior petitions are interlocutory and have no bearing on the treatment of petitioners' petition here. Only the 1995 and 2004 rulemaking decisions commenced pursuant to § 2075.5 are final.

Those rulemaking decisions were not specifically directed at the rights of petitioners or even at the rights of any particular group to which petitioners belong. Rather, the Commission was creating new law for the treatment of a particular class of fish, a law applicable to all Californians.

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[10] The Court of Appeals noted, however, that even the § 2074.2 process was "not confined to a discrete dispute and a narrow set of litigants" and allowed that the adjudicatory/legislative distinction "is not a clear one and both adjudicative and legislative elements are present" in the § 2074.2 process. *Id.*

The whole rulemaking design of the statute is based upon the premise that the status of species is not like a set of rights that may be fixed under existing law; it is a policy decision based on an ever-expanding pool of knowledge concerning species status. Like any rule, it can and should always be subject to legislative revision in the light of new evidence. (*See also* Dissent at 1; see also id. at 5 ("Res judicata does not bar new legislative action").)

2. The Commission's proceedings lack judicial character sufficient to support issue preclusion.

As this Court has recently explained, in order to apply principles of issue preclusion, the proceedings must "be of a sufficiently judicial character". *Murray v. Alaska Airlines, Inc.* (2010) 50 Cal.4th 860, 867; *see also Y.K.A. Industries, Inc. v. Redevelopment Agency of the City of San Jose* (2009) 174 Cal. App.4th 339, 357. The Court noted that:

> "'. . . [i]ndicia of [administrative] proceedings undertaken in a judicial capacity include a hearing before an impartial decision maker; testimony given under oath or affirmation; a party's ability to subpoena, call, examine, and cross-examine witnesses, to introduce documentary evidence, and to make oral and written argument; the taking of a record of the proceeding; and a written statement of reasons for the decision.'"

Murray, 50 Cal.4th at 867-68 (quoting *Pacific Lumber Co. v. State Water Resources Control Board* (2006) 37 Cal.4th 921, 944).

CESA provides no formal "hearing" at all. The statute merely directs the Commission to make findings "[a]t the meeting scheduled

pursuant to Section 2075". Fish and Game Code § 2075.5. There is no testimony given under oath, and no ability to subpoena, call, examine, and cross-examine witnesses—none of the traditional indicia of an evidentiary hearing. This is simply not a case in which a "decision made as the result of a proceeding in which by law a hearing is required". Code of Civil Procedure § 1094.5.

The Commission's rulemaking proceedings provide none of the traditional safeguards associated with judicial review. There was no full and fair" opportunity "to litigate" within the meaning of *Murray*. Rulemaking is not litigation at all, and in *Murray*, the complainant had far more rights than those commenting in California rulemaking proceedings. Mr. Murray, represented by a lawyer concerning his important individual rights in employment, voluntarily invoked an administrative complaint procedure, *Murray*, 50 Cal.4th at 865, which he could have withdrawn even after initial adverse findings, *id.* at 866. Petitioners, of course, had no way to opt out of any rulemaking. Mr. Murray then received a letter informing him of his "important rights of objection which must be exercised in a timely fashion" including the right "to request a hearing on the record before an administrative law judge". *Id.* Petitioners never had any rights to an on-the-record hearing before an administrative law judge. Rather, the process here consists of political appointees making policy decisions.

And it certainly cannot be said that Respondents had "clear statutory notice" of a potential "forfeiture of . . . rights". *Id.* at 868. Until the Court of Appeals acted in this case, the Commission and petitioners had been proceeding for many years in accordance with the plain language of the Fish and Game Code that the proper remedy for judicial review of the rejection of petition was a petition for writ of administrative mandamus directed at that decision.

Significantly, the Supreme Court in *Murray* noted that a distinguishing factor compelling the absence of issue preclusion is that the presence of particular statutory language "suggesting that adverse findings . . . are not binding" in the subsequent action. *Murray*, 50 Cal. App.4th at 877 (emphasis and citation deleted). The statutory language of CESA, providing for a petition to delist that which has been previously listed, is precisely such statutory language.

G. Initial Judicial Review of Listing Decisions Cannot Correct Errors in Light of New—and Later—Scientific Understanding.

According to the majority,

> "An interested person has ample opportunity to tender scientific information to the department for consideration by the department and the Commission during the administrative process leading to a final [listing] decision. What an interested person may not do is tender new information in a later proceeding that challenges the grounds upon which the initial decision has been rendered."

(Slip op. at 13-14; emphasis added & footnote omitted.) But such a rule of

law would mean that citizens could *never* compel consideration of the new information, for the new information cannot be considered in a challenge to the initial listing either. It is axiomatic that in a review of a listing decision under § 1094.5, judicial review "is conducted solely on the record of the proceeding before the administrative agency." *Sierra Club v. California Coastal Comm'n* (2005) 35 Cal.4th 839, 863 (citing and quoting multiple cases). New information is not admissible.

So even if petitioners had all the evidence ultimately advanced in support of their petition in hand before the statute of limitations had run on the time to challenge the 1995 or 2004 listing decisions—and they did not—none of that evidence could have been used to challenge the decisions. It is entirely contrary to the statutory design to render citizens powerless to require the Commission to correct its errors, and the Legislature provided no such anti-scientific procedure for the management of California's wildlife. Rather, citizens can compel the Commission to consider new information by the express remedy in the statute: the petition process.

The dissent properly recognized that exclusion of new evidence was not consistent with the language, structure, and goals of CESA:

> "The majority opinion is simply wrong in holding judicial finality bars legislative reconsideration. As can be seen, the statute clearly provides for reconsideration of prior listing decisions even when the listing decision is final for purposes of judicial review. The Commission's prior decisions are not irrelevant to a later reconsideration, but neither are they res judicata; otherwise they

would undermine the statutory structure and policy allowing for revising legislative listing decisions based on new or previously undiscovered scientific knowledge."

(Dissent at 2.)

II. THE PETITION HERE CONTAINS SUFFICIENT INFORMATION TO WARRANT THE COMMISSION'S FURTHER CONSIDERATION.

A. The Standard of Review.

Until the decision below, it was well-established that review of both the initial decision concerning the sufficiency of a petition, and the ultimate listing decision based on the petition, proceeded under § 1094.5 of the Code of Civil Procedure. Reviewing courts have properly applied the "substantial evidence" test utilized in § 1094.5 cases. *See, e.g., Natural Resources Defense Council v. Fish and Game Comm'n* (1994) 28 Cal.App.4th 1104, 1114-17; *accord Center for Biological Diversity v. Fish & Game Comm'n* (2008) 166 Cal.App.4th 597 (reviewing petition rejection); *see also Center for Biological Diversity v. California Fish and Game Comm'n* (2011), 195 Cal.App.4th 128, 132 (reviewing fee award). Specifically, "the standard, at this threshold in the listing process, requires only that a substantial possibility of listing could be found by an objective, reasonable observer." *Center for Biological Diversity*, 166 Cal.App.4th at 611.

The Court of Appeals, however, overturned its own prior decisions

to declare that decisions to reject a petition can only be set aside through the highly-deferential "arbitrary and capricious" test is utilized in cases brought under § 1085 of the Code of Civil Procedure. *See generally American Coatings Ass'n v. South Coast Air Quality Management* (2012) 54 Cal.4th 446, 461 (distinguishing "substantial evidence" and "arbitrary and capricious" tests).

The Commission's reasons for discarding § 1094.5 review are in error. The idea that the Commission's rejection of a petition "does not result in a final decision" (slip op. at 15 n.11) makes no sense at all; it is final as to petitioners. As set forth above, the idea that review of a petition is a "quasi-legislative action of the Commission" (slip op. at 12) is also in error.

The Commission's suggestion that because Fish and Game Code § 2076 invokes § 1094.5 review for only "this section," such review is only available for the final rulemaking decision, is in error on two counts. First, it is an artifact of the legislative history, which shows that the Legislature intended § 1094.5 to apply to all petition-related decisions.[11] Section 2076 is self-referential and meaningless if narrowly construed, for no findings are made pursuant to § 2076. Second, the quasi-judicial final decision rejecting

[11] *See generally* Petitioner's Motion for Judicial Notice, Feb. 24, 2012 (collecting legislative history).

a petition is covered by the plain language of § 1094.5; only the quasi-legislative listing rulemaking requires a special statute displacing § 1085 review with § 1094.5 review.

No California court reviewing a CESA decision has ever employed

B. Multiple Independent Lines of Evidence Support at Least Substantial Possibility that Coho Salmon Are Not Native to the Area South of San Francisco.

The majority did not discuss or review the new evidence presented by petitioners, brushing off their evidentiary showing with a reference to the Court of Appeals decision affirming the 2004 coho listing in the *CFA* case. The Court referred to the "wide discretion" the Commission enjoys in listing determinations, and simply declared the 2004 decision "binding on respondents"[12]

As the dissent explained,

> "the dispositive issue is not whether the 1995 and 2004 listing decisions are final and section 2076 bars further judicial review. That statute does not apply here. Contrary to the holding of the majority opinion, the dispositive issue is whether plaintiff's petition to the Commission includes sufficient scientific information that the delisting 'may be warranted,' regardless of when the listing decision was made. (§§ 2072.3, 2074.2, subd. (a).) This was the standard which the trial court on two occasions ordered the Commission to apply and also correctly determined the Commission had

[12] There is a suggestion by the majority that plaintiffs "also challenge the 2004 determination" (slip. op at 17) in these proceedings, but no such relief was ever sought; at all relevant times, plaintiffs have merely sought full and fair consideration of their petition, and judicial review of the Commission's rejection of that petition.

failed to apply."

(Dissent at 2.)

We cannot in this brief review the entire collection of evidence presented in the petition to the Commission, but merely present highlights, and cross-references to broader treatments in Brief of Respondents, Oct. 1, 2009. The evidence is best summarized in the peer-reviewed article in *Fisheries.* (AR1/3:899-917.) In considering the possibility that the Commission erred, this Court should note the Commission's finding that the *Fisheries* article did not provide any "credible information . . . upon which a reasonable person would rely". (AR1/4:1223; *see also* ROA1013-14 (Superior Court cites this as evidence of the Commission's failure to apply the appropriate legal standard in reviewing the evidence advanced in the Petition).) This finding typified the astonishing disregard for scientific evidence that permeated the Commission's review of the petition.

1. Measured survival percentages prove that coho south of San Francisco cannot persist.

While scientists may have strong and varying *opinions* on the survivability of coho in the area, actual *measurements* of coho survival transcend mere opinion. *See generally Daubert v. Merrell Dow Pharmaceuticals, Inc.* (1993) 509 U.S. 579, 592 ("statements constituting a scientific explanation must be capable of empirical test"). In determining whether Petitioners have presented the amount of "information . . . that

would lead a reasonable person to conclude there is a substantial possibility that the requested listing [change] could occur", *NRDC*, 28 Cal. App.4th at 1125, information based on scientific measurements is obviously of greater importance than opinions without scientific data to support them.

Petitioners have repeatedly demonstrated based on actual measurements of freshwater and ocean survival that coho cannot persist. Dr. Kaczynski provided extensive and updated information to the Commission showing that:

> "Coho salmon south of San Francisco cannot survive for extended periods using the best available empirical scientific data because of relatively low freshwater survivals . . . coupled with observed marine survivals in the California Current". (AR1/3:975; citations omitted.).

More specifically, freshwater survival, corrected for straying, is only 1.35%,[13] while marine survivals from 1999 to 2005 ranged from 0.5% to 4.5%. (*Id.* at 973.)

Remarkably, the Department's own analysis (AR1/4:1071) *proved petitioners' point:*

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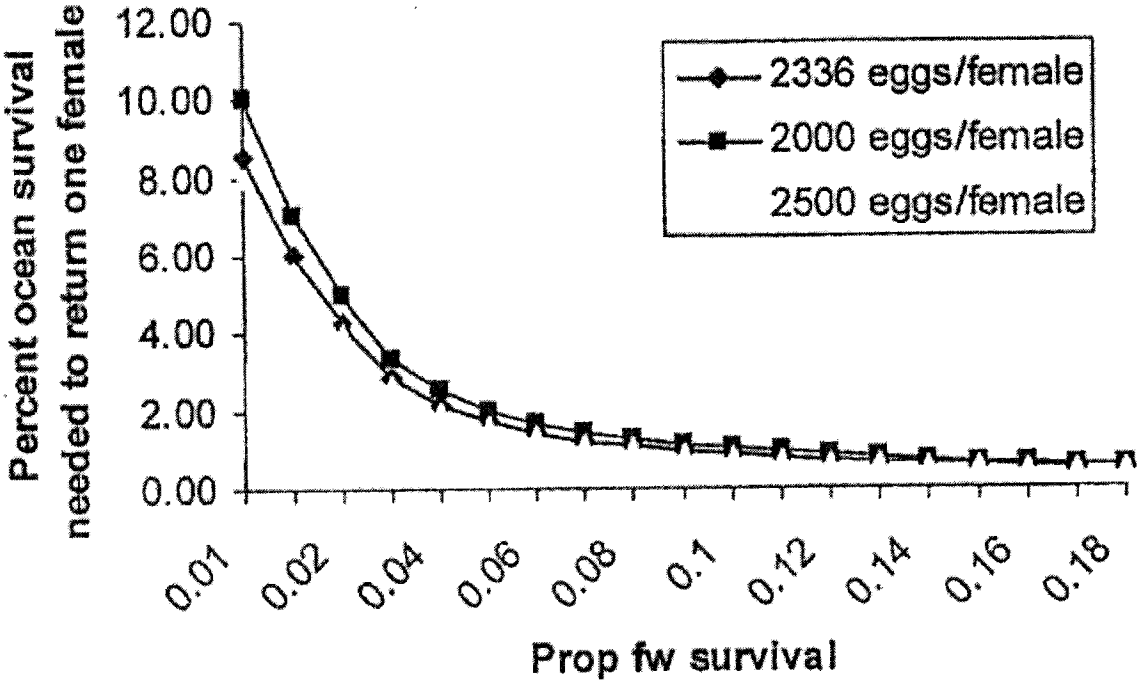
13 The Commission's Finding claims survival of 1.43% (AR1/4:1216), referring to the Department's statement to this effect (AR1/5:1259), but Dr. Kaczynski explained in considerable analytical detail why the 1.35 number was correct (ROA:805-806; BX34, at 16-17).



Here one can plainly see that 1.35% (0.0135)) freshwater survival requires upwards of 8% ocean survival for female coho to replace themselves. At the same time, the Department confirms that "recent estimates [of ocean survival] have been [only] as high as 4%, possibly due to [a] recent shift to more favorable ocean conditions". (AR1/5:1251.) *In short, ocean survival under "more favorable conditions" is less than half the value needed to sustain coho populations.*

The Department attempted to sidestep the obvious conclusion to be drawn from its own graph in a variety of ways, all of which were wrong. First, the Department cited "Groot and Margolis 1991" for the proposition that "individual female coho salmon may produce between 1,983 and 4,706

eggs" (*Id.*). But those figures come from a review of studies showing that coho egg production falls from 4,706 in Alaska down to 1,983 in Oregon (ROA394: BX3, at 4), and the coho south of San Francisco are known to have fewer eggs (AR1/3:785-796). Thus, even higher ocean survivals would be required to sustain coho in California, perhaps as high as 12% based on the graph above.

The Department also cited Botsford *et al.* (2005) for the proposition that ocean survivals were as high as 10% back in the 1970s. (AR1/5:1251.) But that data is based on the "Oregon Production Index", which represents the ocean survival of not just California stocks (much less stocks south of San Francisco), but also stocks from Washington and Oregon. (*See* RAO:503; BX9, at 6) And the Botsford paper presents more complex analyses of the sustainability of coho salmon under a variety of assumptions, including some omitted from Dr. Kaczynski's work, and the graphs *still all show a decline in abundance under any of the assumptions used.* (*See id.* at 505.) In any event, Dr. Kaczynski's analyses, based on actual measurements south of San Francisco, are better because "they contain far fewer assumptions". (AR1/3:975.)

The Department argued that the Botsford results "cannot be interpreted to mean that they [Washington, Oregon and California coho, called "California Current coho"] suffered extinction". (AR1/5:1251.) But

the question is not whether all coho on the West Coast are extinct; the question is whether coho can ever survive south of San Francisco.

The Superior Court carefully reviewed the foregoing evidence, properly concluding that the Commission's finding contrary to the petition "appeared to contain inaccurate figures" and that the Commission "lacked evidentiary support" for its position. (ROA1014.)

2. The fundamental survival measurements are corroborated by real differences in the nature of the climate faced by coho populations south of San Francisco.

Back in 1995, the Department's status report frankly acknowledged the poor habitat conditions south of San Francisco, and expressly admitted that it was a mere *presumption* that coho could survive in such conditions:

> "These southernmost populations experience and respond to the unfavorable, adverse environmental conditions associated with the fringe of any distribution. In such areas, environmental conditions can become marginal, harsh or extreme for coho survival and, *presumably*, these southernmost populations have adapted to the less-than-optimal environments." (Quoted in ROA563: BX10, at 47; emphasis added.)

The record is rife with such comments. (*See generally id.* at 47-48.)

The Petition may be understood, among other ways, as demonstrating that the *presumption* which backed up the 1995 listing was simply wrong. Indeed, one significant portion of the petition engaged in "discourse analysis" to trace assertions of this presumption in various scientific papers through a cascading series of invalid citations and citations

of erroneous information. (AR1/3:880-83.) While that analysis shows how the Commission erred, we focus here on the underlying evidence.

First, there is no dispute that the streams south of San Francisco frequently have sandbars blocking salmon migration.

Second, the drier and "flashier" nature of precipitation south of San Francisco has been widely noticed in the scientific literature and is widely recognized to impair coho survival. (*See, e.g.*, ROA564-65: BX10 at 48-49 (collecting and quoting numerous studies).) Specifically, the region south of San Francisco is more prone to severe storms that wash out and destroy coho redds (nests). Neither the Department nor the Commission appears to dispute, for example, that the region south of San Francisco is significantly more likely to receive very heavy rainfall in a short period of time. (*See* AR1/5:1259; AR1/4:1215.)

The Commission and Department argued that "[i]n order to make determinations about habitat suitability, one would need to examine the habitat characteristics along the entire range of coho, not just one small area, and not just one habitat variable". (AR1/5:1252; AR1/4:1215.) This is not an appropriate burden for petitioners. Petitioners showed empirical evidence that introduced coho inevitably declined, and provided solid environmental data explaining why. To the extent the Department wished to conduct some sort of larger-scale examination, that is precisely the sort of

step that could and should have been be taken in the full status review to occur after the Petition is accepted.

Lacking any empirical data to contest the Petition, the Department and Commission identified a computer model (Spence *et al.* 2005) "based on several geomorphic and hydrological characteristics that estimates the historical potential for a particular stream to be suitable for coho salmon". (AR1/5:1246; AR1/4:1214-1215.) The computer modeling "shows that coastal Marin County streams are ecologically similar to Santa Cruz County streams of equivalent watershed size". (*Id.*) The problem, of course, is that the computer model simply does not include any function relating to the severity of storms and the probability of washing out coho redds. Nor does it build in the probability of sand bars arising that are not breached in lower flow conditions. Instead, the model

> ". . . uses a fuzzy logic approach to convert values for *stream gradient, valley width index and mean annual discharge* into separate suitability ratings between 0 and 1. The geometric mean of these suitability values is taken to be the IP [Intrinsic Potential] value for a particular reach." (ROA624-625: BX16 at 2-3; emphasis added.)

This sort of very general and highly synthetic analysis obviously cannot refute specific, detailed, localized information concerning local habitat. "Mean annual discharge" obviously sheds no light of the frequency of scouring floods when redds are present, or the likelihood of sand bars that bar all migration. As the Superior Court properly recognized, the

Commission's Finding simply "ignores" Petitioners' evidence. (ROA1014.)

In other contexts, courts have properly recognized that the "agency must provide a full analytic defense when its model is challenged". *American Iron and Steel Institute v. EPA*, 115 F.3d 979, 1004 (D.C. Cir. 1997) (citing *Eagle-Picher Indus., Inc. v. EPA*, 759 F.2d 905, 921 (D.C. Cir. 1985)), particularly when challengers "identify clearly major variables the omission of which renders the analysis suspect", *Appalachian Power Co. v. EPA*, 135 F.3d 791, 804-05 (D.C. Cir. 1998). Here the Commission did not even acknowledge the challenge.

Instead, the Commission ultimately retreated to the position that the climate data are not "conclusive scientific evidence" that habitat differences "are significant enough to preclude coho presence south of San Francisco". (AR1/4:1215.) Again, it was petitioners' burden to submit evidence that a reasonable person would say "may warrant" narrowing the scope of the listing decision, not to prove its case "conclusively". Petitioners are not saying that the watersheds south of San Francisco "preclude coho presence"; rather, they are saying that the conditions are sufficiently hostile that the coho cannot and did not *persist* in the area.

3. The history of hatchery operations over time is consistent with cycles of introduction and extirpation.

The Commission brushed over a century of coho plantings with the conclusion:

> ". . . coho salmon hatchery operations in the region were relatively small, with limited, scattered production over an extended time scale, and that these relatively early primitive hatchery operations relied on large proportions of early stage plants that possess notoriously poor survival prospects. The fact that hatchery stocks were imported to the region *cannot be interpreted* to mean that there were no native fish there at the time. . . . The petitioners' hypothesis that all historical and present day south of San Francisco coho populations are due to hatchery plants remain *pure speculation unsupported by credible scientific evidence*." (AR1/4:1220; emphasis added.)

The choice to delist coho salmon south of San Francisco does not depend on them being exclusively the product of hatchery plants; it depends upon a showing that any coho that happen to show up in the area—whether by hatchery plants or simple straying—are inevitably wiped out by the local conditions.

The Commission's Finding that the need to import coho from Baker Lake, Washington in 1905 "*cannot be interpreted* to mean that there were no native fish there at the time" (AR1/4:1220) illustrates the frankly unreasonable approach taken by the Commission, entirely contrary to the "reasonable person" approach required under *NRDC*. As petitioners pointed out, local fish culturalists could have obtained the 50,000 eggs they started with from only 20-30 adult coho. (ROA524: BX10, at 8.) The

most reasonable interpretation is that people thought they were introducing a species new to the area *because they had to import the eggs*.

Petitioners demonstrated a recurring pattern of large hatchery planting efforts, followed by rapid declines. This data is set forth in detail in the Brief of Respondents, Oct. 1, 2009, at 23-25. A comprehensive 1995 federal status review endorsed petitioners' conclusion that "apparent low escapements in these rivers and streams [here referring to *all* coho south of Punta Gorda], in conjunction with heavy hatchery production, suggest that natural populations there *are not self-sustaining*". (ROA397: BX4, at 2; emphasis added.) Indeed, the National Marine Fisheries Service (NMFS) has found that the hatchery may be responsible for "sustaining" coho runs, not that runs are self-sustaining. 70 Fed. Reg. 37,160, 37,187 (June 28, 2005). The peer-reviewed conclusion in the *Fisheries* article: "All coho salmon found today in Scotts and Waddell Creek are of hatchery origin . . . and as of 2003, there was only a single viable year-class of coho south of San Francisco". (AR1/3:905; *see also* AR1/3:913.)

Remarkably, in the face of all the undisputed hatchery planting and failures, the Commission disparages the obvious conclusions petitioners drew as "pure speculation". (AR1/4:1220.) Such a finding cannot remotely be described as supported by "substantial evidence". Petitioners' conclusions about the role of hatcheries are corroborated by the survival

analyses and all the other evidence. Particularly at the petition stage, such evidence is plainly sufficient to show that full consideration of the Petition "may be warranted".

4. Unanimous scientific and popular opinion, prior to a century of hatchery efforts, regarded coho as not native south of San Francisco.

The coho south of San Francisco were initially listed in response to a 1993 listing petition filed by the Santa Cruz County Planning Department asserting that in the 1800s coho inhabited all central coast streams at an assumed peak sustainable density, and had suffered a 95-98% population decline. (AR1/3:836, 838.) This was manifestly false, as *all* the early scientific and popular literature is only consistent with one view: the coho were never present in these streams at all, much less in enormous numbers, until brought in by fish culturalists.

In the Petition (AR1/3:870-871) and supplemental filings prior to the Commission's initial rejection of the Petition (*e.g,* ROA523: BX10, at 7), Petitioner demonstrated that *all* primary scientific literature prior to 1906 regarded the natural range of the coho as extending north from San Francisco Bay. These were not just unsupported opinions, but the products of actual stream surveys over a period of many years by the leading experts of the day. (*Id.*) The figure that looms largest, Dr. David Starr Jordan, also President of Stanford University, made extensive expeditions up and down

the California coast and was personally and professionally familiar with Santa Cruz mountains and streams. (AR1/3:871.) The Superior Court properly held that the Commission simply "failed to acknowledge" this evidence. (ROA1014.)

Several local newspapers uniformly described the arrival of hatchery coho as the arrival of a *new species*: "It is believed if raised and planted here they will frequent our streams and thus give us another valuable game fish". (AR1/3:875 (quoting *Santa Cruz Morning Sentinel,* Dec. 20, 1905).) Whether this new species would survive was not certain even then: ". . . if they thrive here as hoped they will prove a valuable addition to the piscatorial tribe of our Santa Cruz waters". (*Id.* (quoting *The Mountain Echo*, Mar. 24, 1906).) By 1909, the popular national magazine *Forest and Stream* reported on plantings in the San Lorenzo River, specifying that "a number of [the hatchery coho] have been taken this fall making a run up that stream". (*Id.* at 876.) Presumably this is why the first scientific mention of coho south of San Francisco came in 1912, in a comprehensive review of "The Fishes of the Streams Tributary to Monterey Bay" which contained the assertion that coho "were said to have been observed in the San Lorenzo River at Santa Cruz" (*id.*)—*and nowhere else south of San Francisco.*

The Commission dismissed the unanimous local opinion expressed at the time of the hatchery introduction that the coho constituted a "new species" (*see, e.g.*, AR1/3:876), as "non-scientific reports of already depressed salmonid populations rather than as *definitive scientific proof* that these fishes [*sic*] were *unquestionably* absent from the area" (AR1/4:1212 (emphasis added)). But Fish and Game Code §§ 2072.3 & 2074.2 do not permit the Commission to require "definitive scientific proof" or "unquestionable" facts. *Cf. Defenders of Wildlife v. Babbitt*, 958 F. Supp. 670, 679-80 (D.D.C. 1997) (Service applied wrong legal standard in dismissing evidence because it was not "conclusive").

As to the Commission's suggestion that the reports refer to "already depressed salmonid populations," it is flatly contrary to the plain language of the reports; the national magazine *Field and Stream* noted the local hope that the coho would establish natural runs "thus adding a new species of both game and food fish *to the already well supplied waters of the [Monterey] Bay*". (AR1/3:876; emphasis added.)

The Superior Court concluded that the popular accounts were "proper information . . . which [the Commission] should have considered". (ROA1014.) Analogous federal case law confirms that listing agencies are required to consider all evidence, and may not reject even "anecdotal" evidence. *Northwest Ecosystem Alliance v. U.S. Fish & Wildlife Service*,

475 F.3d 1136, 1147 (9th Cir. 2007) ("We are unpersuaded that the Service was justified in rejecting the secretive behavior evidence and the Klickitat County study solely because they were anecdotal"). *A fortiori* the Commission may not reject numerous *published* accounts out of hand.

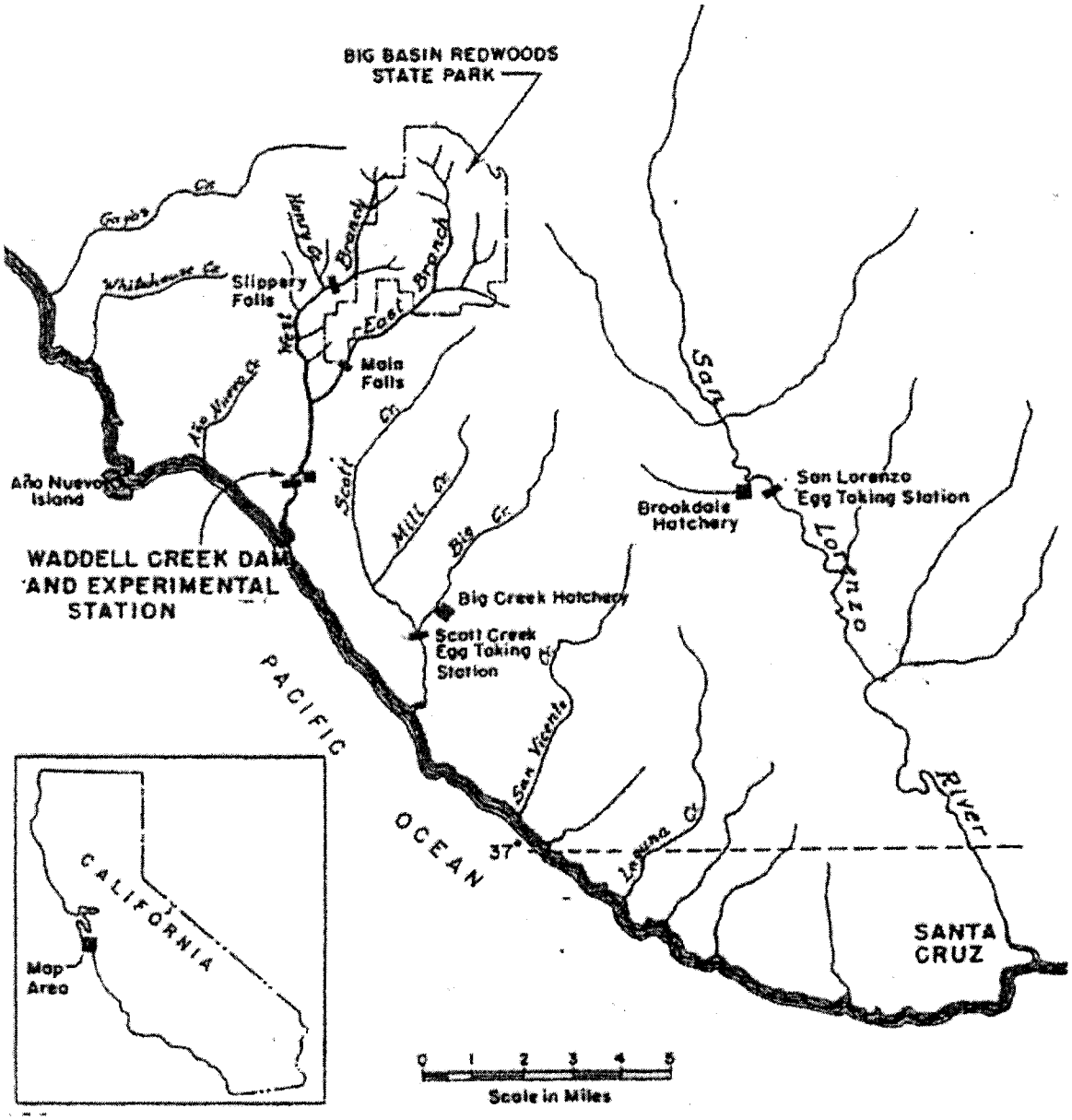
A fair-minded Commission could only agree with petitioners and conclude that "[f]or a permanent population of native coho to elude the archeological record, several scientific surveys, generations of anglers, two newspapers, a popular angling journal, and a fish culturalist operating a fish trap on Scotts Creek, it must have been practically nonexistent". (AR1/3:873, n.8.)

5. The archeological record is consistent with the absence of coho south of San Francisco.

When Petitioners first presented their Petition, not a single coho bone had been found in the 100,000 fish bones analyzed in Native American middens south of San Francisco, though closely-related (and genuinely native) steelhead bones are present. This line of evidence, while of course not conclusive, could only rationally be interpreted as supporting the thesis of the Petition.

In November 2006, researchers discovered a single alleged coho vertebra on Año Nuevo Point, "in an ocean beach midden behind a small island with bones of marine fish species and not near any known salmon-

bearing streams". (ROA791-92.) This map, shown to the Commission, illustrates the location of Año Nuevo Point:



(AR1/4:1072.)

Given the location of the discovery, and the nature of the Native American activities there, the obvious explanation is that the fish was caught in the ocean, and does not represent any run native to the local rivers and streams.

The archeological findings at the site "indicate the use of both hook and line, and netting technologies" (AR1/4:1035), and, indeed, "sophisticated netting technology and use of watercraft beyond the kelp zone" (*id.* at 1037.) Dr. Kaczynski also confirmed that the fish bones recovered at the site are marine species, "and the local inhabitants at Año Nuevo were sea going, even beyond the local kelp beds". (AR1/3:967.) ("Native Americans on the coast of California regularly rowed in their kayaks from out to the [Farallon] Islands and back from the Marin County coast." (AR1/4:1137.[14])

Dr. Kaczynski also explained that the nearest freshwater creek, Año Nuevo creek, was too small to have any salmon in it. (AR1/3:967.) The nearest potentially salmon-bearing freshwater source is Waddell Creek, which from the map reproduced above is roughly four miles down the Coast. (*See* AR1/4:1072.) However, prior efforts to plant salmon in Waddell Creek produced populations that shrunk 30% per year (A1/3:977) for reasons discussed above, so there is no reason to suppose there was ever a persistent population of coho there (*see also* AR1/3:789 (Dr. Kaczynski corroborates this view)). A fair-minded reviewer would have to acknowledge at least the probability that the coho bone was, as Professor Kaczynski suggested "of marine origin". (AR1/3:967.) The Superior Court

[14] The Farallon Islands are 27 miles west of the Golden Gate.

properly concluded that "petitioners' questions concerning the significance of this [coho bone] discovery are not addressed in the Notice of Findings". (ROA1015.)

6. Certain disputed specimens do not prove persistent self-sustaining populations.

After the Petition was filed, demonstrating that none of the early salmon specimens ever collected south of San Francisco were coho, certain specimen fish allegedly collected south of San Francisco in 1895, were determined to constitute *coho* salmon specimens. This in turn was regarded as proof that coho were native to the area.

At the outset, even if a handful of coho specimens were collected south of San Francisco in 1895, that does not demonstrate the existence of self-sustaining populations. It is well-known that "ephemeral (temporary) salmon year-class colonies established by strays are not uncommon, particularly just beyond the fringes of a biogeographic range boundary". (AR1/3:907.) The available historical data indicate very large California salmon runs in 1895, followed by very severe droughts which would have extinguished any temporary colony south of San Francisco. (*Id.*) It is also entirely possible that the 1895 coho, if any, could also have been the product of numerous earlier, undocumented fish planting activities in earlier years (some are documented in 1878 and 1885). (*See id.*)

As to the specimens themselves, there is really no dispute concerning their peculiar provenance:

- The original logs identify the specimens as other salmon species (all but one was identified as a chum, or "dog" salmon) (AR1/3:906);
- There is independent evidence of runs of chum salmon in the collection areas, which, as adults, "could easily be distinguished from adult coho" (ROA797: BX34, at 8);
- The tags identifying the specimens were not initially attached to the fish (AR1/3:907);
- The specimens suffered through the 1906 earthquake (prompting a change in procedure, to attach tags to fish), which broke over 1,000 sample bottles (ROA367: BX1, at 5);
- The *Stanford Ichthyological Bulletin* reported that despite efforts to match fish, bottles and tags, "some doubt could not be avoided" as to the provenance of some specimens (*id.*);
- "A careless curatorial assistant" removed labels from half the jars that would have told if the jars had been were broken or not (*id.*);
- The specimens were initially logged as non-coho after the collection was transferred from Stanford to the California Academy of Science (AR1/3:906);

- *An unknown individual later re-identified the fish as coho under unknown circumstances at an unknown time* (*id.*);
- There are now fish with labels identifying them as fish collected south of San Francisco in 1895, and they do appear to be coho, although DNA testing cannot confirm the species identification owing to decomposition of the specimens (*id.* at 907); and
- The DNA testing did not work because of formaldehyde contamination of the specimens, *yet standard practice in 1895 would have been to use alcohol for preservation, such that genuine 1895 samples "should not have formaldehyde contamination"* (ROA796: BX34, at 7).

Given the extraordinary circumstances involving the specimens, petitioners frankly doubt that any coho were collected in 1895. Any objectively reasonable person would have some concern about their validity; Dr. Kaczynski stated: "in my professional opinion, the CAS specimens have a serious reliability problem". (AR1/3:790.).

In its Finding, the Commission blithely concluded that petitioners' concerns about the legitimacy of the specimens under these undisputed circumstances are "pure speculation". (AR1/4:1212.) The Superior Court properly concluded that Petitioners "raised significant questions as to the legitimacy and significance of [the] specimens". (ROA1015.)

C. The Genetic Evidence Suggests that the Petitioned For Action May Be Warranted.

Petitioners anticipate that the Commission will rely heavily upon the notion, which it successfully advocated in *CFA*, that scientific evidence in the form of genetic analyses supported dividing California coho into two groups, one north of Punta Gorda, and one south. However, the most salient fact about salmon is that they return to their natal river to spawn, such that each river is reproductively isolated from other rivers except when salmon stray into a non-natal river. From this common-sense perspective, any particular river of salmon is isolated enough to be treated as a "distinct population segment" under federal law, and thus very small groups of salmon have been listed in the past. *See, e.g.*, 70 Fed. Reg. 37,160, 37174 (June 28, 2005).

In fact, there is little genetic variation amount among all coho salmon (which, since they are members of the same species, is not surprising). Geneticists have found very little genetic variation among coho salmon "across the entire Pacific Northwest" (*see* ROA417: BX6, at 2.) Specifically, "Pacific salmon populations are typically characterized by different frequencies in the same suite of alleles, rather than by qualitative differences in the types of alleles present". Simply put, no population of coho has any truly unique genetic material.

For this reason, the federal policy on evolutionarily significant units makes it quite clear that genetics data is of very limited usefulness in defining "species". The federal policy emphasizes over and over that genetics evidence is not to be given controlling importance in defining the evolutionarily significant unit.[15] Indeed, "the majority of 'species' determinations under the Federal ESA have been made *without the aid of any direct genetic evidence*". 56 Fed. Reg. at 58,616 (emphasis added).

It is true that the 2002 Status review used then-available genetic studies, primarily relying upon a 1995 study, to identify asserted areas of "genetic discontinuity" (AR1/6:1635), but it also warned that "[n]o comprehensive study of coho population genetics covering the range of coho salmon in California is available" (AR1/6:1636). Most significantly, 2002 Status Review noted that "[p]opulations south of San Francisco may be separable from other California stocks," but "more data are needed". (*Id.*)

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[15]*See, e.g.,* 56 Fed. Reg. at 58,614 (federal Policy cautions against excessive reliance on genetic data in "inferring reproductive isolation"); *id.* at 58,615 (warning that evidence of importance based on adaptive differences "must come from sources other than protein electrophoresis"); *id.* at 58,618 (noting several sources of data that must all be considered in connection with reproductive isolation)); *see also* AR1/9:2931 ("since genetic structure is highly sensitive to very low levels of effective dispersal, genetic analyses are of limited use in determining whether two groups are exchanging demographically relevant numbers of individuals").

In 2005, federal scientists completed such a "comprehensive study" providing the data not available for the 2002 Status Review. (AR1/9:2877-3104.) The study confirms the distinctness of coho populations south of San Francisco, but more generally confirms the federal conclusion that genetic data is not particularly useful in defining evolutionarily significant units. The NMFS scientists employed "three general analytical approaches" with the genetics data: (1) "analyses of pairwise F_{ST}"; (2) phyleogeographic trees" and (3) "assignment tests". (AR1/9:2928-2929.) Remarkably, all three of these analytical approaches refute the Commission's claim that the south of San Francisco fish *must* be lumped in with more northerly fish. The Brief for Petitioners, Oct. 1, 2009, contains, at pp. 49-53, a detailed presentation concerning the genetic evidence and its significance.

Ultimately, however, the genetics data is little more than a Rorschach test in which one can see any particular grouping of fish as appropriate. One must look beyond genetics to questions of policy to determine what group of fish meets the test for an "evolutionarily significant unit" important enough to exercise listing powers well beyond those contemplated in the statutory language. The Commission did not and could not offer any credible reason that the remnant hatchery fish south of San Francisco merited listing.

D. Petitioners' Concern for Native Steelhead Is a Relevant Consideration Supporting the Petition.

CESA finds value in all species of wild fish threatened with extinction, not just coho. *See* Fish and Game Code § 2051. The Commission does not seriously dispute that coho salmon depress populations of endangered steelhead trout. (AR1/3:853.)

The Commission now contends that effects on endangered steelhead are irrelevant as a matter of law because "effects on other species" is not listed among the statutory factors listed in CESA. However, the Legislature's listing of the factors the Commission might consider in a listing decision is expressly unbounded; it includes factors which "shall, at a minimum," be considered, rather than an exhaustive list, and allows "*any other factors that the petitioner deems relevant*". Fish and Game Code § 2072.3 (emphasis added).

At the least, the Commission owes a duty under *Topanga Ass'n for a Scenic Community v. County of Los Angeles* (1974) 11 Cal.3d 506 to explain why it insists on extending CESA to protect what can only be properly understood as hatchery fish, given the undisputedly adverse effects on genuinely native wild steelhead.

Conclusion

For the foregoing reasons, this Court should hold that petitioners properly brought errors to the attention of the Commission through the

petitioning process, which the Commission is bound to address through the full procedures provided in Fish and Game Code § 2074.2(a)(2) *et seq.*

DATED: April 29, 2013.

Respectfully submitted,

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CERTIFICATE OF COMPLIANCE

Pursuant to California Rule of Court 8.204(c), I hereby certify that the foregoing Opening Brief on the Merits is proportionately spaced, has a typeface of 13 points or more, and contains 13,913 words.

DATED: April 29, 2013.

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DECLARATION OF SERVICE BY MAIL

I, Carole Caldwell, declare as follows:

I am a resident of the State of Oregon, residing and employed in Portland, Oregon. I am over the age of 18 years and am not a party to the above-entitled action. My business address is 3425 SE Yamhill Street, Suite 100, Portland, Oregon 97214.

On April 29, 2013, true copies of Opening Brief on the Merits were placed in envelopes addressed to:

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San Francisco, CA 94102-7004

Deborah A. Sivas
Environmental Law Clinic
559 Nathan Abbot Way
Stanford, CA 94305-8610

which envelopes, with postage thereon fully prepaid, were then sealed and deposited in a mailbox regularly maintained by the United States Postal Service in Portland, Oregon.

I declare under penalty of perjury that the foregoing is true and correct and that this declaration was executed this 29th day of April, 2013, at Portland, Oregon.

Carole Caldwell