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

REPLY BRIEF ON THE MERITS

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The Commission begins its response by disparaging plaintiffs as mere "timber interests," but the statutory petitioning process properly anticipated that parties beyond the Commission and Department might well have superior insight into the status of California fish and wildlife interests. Plaintiffs here are vitally interested in fish and wildlife conservation and have received awards for it. (Opening Br. at 2-3 & n.2.) Their petition is premised, in part, upon the threat to native steelhead they have worked hard to recover, and the misguided insistence of operating of hatcheries to foster non-native coho to the detriment of the steelhead. It is not that coho south of San Francisco are "not 'important' enough to protect" (Comm'n Br. at 1), it is that they are not native, self-sustaining populations qualified for protection under the California Endangered Species Act (CESA), and protecting them under CESA is harmful to fish and wildlife protection generally.

Continuing its arbitrary and capricious implementation of CESA, the Commission now takes the position that the very position it advocated vigorously before the Court of Appeals, and induced the Court of Appeals to accept, was wrong. The Commission now admits that it "may consider a petition to delist a species that alleges errors in (*e.g.* collaterally attacks) a prior listing decision". (Comm'n Br. at 2.) The Commission now admits

that its rejection of the petition was properly reviewed under § 1094.5 of the Code of Civil Procedure. For these reasons alone, the Court of Appeals must be reversed.

The Commission nonetheless argues, at least for purposes of this appeal and in this Court, that its powers under CESA are strikingly limited. According to the Commission, it is perfectly free to list tiny components of a biological species as separate "species" for purposes of CESA, but once it determines to combine these groups into a single, larger "species," that decision may never be reconsidered unless (1) the smaller units "are a biologically distinct 'species'" and (2) this species is not an endangered or threatened species as defined in CESA. While the Commission argues that the petition here "contained no showing on either of the above" (Comm'n at 2), that is not correct.

Plaintiffs demonstrated that the division of a species into tiny subsets is for all practical purposes entirely arbitrary, but that adequate genetic and other evidence showed sufficient distinctness between coho south of San Francisco to treat them separately for CESA purposes, *just as the Commission did in its initial listing decision.*

And plaintiffs demonstrated that the coho south of San Francisco did not meet the statutory definition for "endangered" or "threatened" species because they were not "native" wild fish endangered within their natural

range. The Commission thus argues that even artificially introduced hatchery fish outside the natural range of the species must be protected under CESA, but CESA's policies of restoration, emphasized by the Commission (Comm'n Br. at 3) presuppose that the Commission is acting to restore healthy, native, self-sustaining populations of fish. Where such populations did not exist, the policies of CESA are undermined by introducing and forcing the maintenance of hatchery populations that compete with native species.

Argument

I. THE ERRORS DEMONSTRATED IN THE PETITION ARE LEGALLY-COGNIZABLE UNDER CESA.

The Commission's current position is that a petition may identify errors in a listing, but only if they are "relevant to the statutory bases for delisting under CESA". (Comm'n Br. at 19.) In words, the Commission contends that a petition must show: "(1) that the group of populations proposed to be delisted are a biologically distinct species from the listed species; and (2) this separate species is not a biologically "endangered" or "threatened" species, as defined in CESA". (Comm'n Br. 20.) In substance, however, the Commission takes the position that if it errs in listing non-native, hatchery-supported stocks that never were self-sustaining populations of wild salmon, and never could be, that error is beyond any correction, even by the Commission. The Commission is wrong.

A. The Question of Deference.

At the outset, the Commission merits no deference whatsoever from this Court on any question of species definition, because it has never articulated any consistent or coherent policy on species definition, much less enacted a rule constituting the sort of agency determination to which deference might properly be given. *Cf. United States v. Mead Corporation*, 533 U.S. 218 (2001) (noting hierarchy of agency decisionmaking methods and deference due thereto).

Initially, the Commission's Finding rejecting the petition made essentially no reference to legal deficiencies, instead quarreling with the factual evidence offered by plaintiffs. (*See generally* AR1/3: 810-15.) In rejecting the Petition a second time, the Commission's Finding continued to focus upon the factual issues, but also began to articulate legal deficiencies in the petition so that it might be rejected even if entirely correct on the facts. (AR1/4:1223 (emphasis added).)

The Commission also contended at all relevant times that CESA does not "discriminate between hatchery and naturally spawning populations". (*Id.* at 1224; *see also* AR1/3:814.) Between the first and second Finding, however, the Court of Appeals had told the Commission that CESA did discriminate in favor of wild fish. *California Forestry Ass'n v. California Fish & Game Comm'n* (2007), 156 Cal. App.4th 1535, 1552

(emphasis added), in a decision the Commission now contends is *res judicata* for this case and may not be questioned (Comm'n Br. 20 n. 9).

Before the Superior Court, plaintiffs litigated the question of whether the Commission could list tiny subgroups out of the thousands of coho salmon populations as a "species" at all, but the Commission persuaded both the Superior Court and the Court of Appeals in the *California Forestry Association* (*CFA*) case 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 obtained such authority 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.

Before the Court of Appeals below, however, the Commission began to walk away from its position in the *CFA* case. While the Commission's brief below emphasized asserted "longstanding adherence" to the federal ESU concept by asserting that its listing decisions were "[p]aralleling the federal approach" (Appellant's Brief, filed June 30, 2009, at 14), the Commission also for the first time denied entirely that it follows the federal definition of an ESU (*id.* at 26 n. 7). The Commission now asserts an entirely new formulation of its species power: it now asserts the power to list whatever group of animals it identifies as "biologically distinct". (*See*

Comm'n Br. 20.) This is an agency unmoored from its statutory directives.

It is axiomatic in administrative law that "courts may not accept appellate counsel's post hoc rationalizations for agency action". *Burlington Truck Lines v. United States* (1962), 371 U.S. 156, 158; *see also Yamaha Corp. of America v. State Board of Equalization* (1998) 19 Cal.4th 1, 13 ("a vacillating position . . . is entitled to no deference"; quoting Cal. Law Revision Com., Tent. Recommendation, Judicial Review of Agency Action, at 11 (Aug. 1995)). What the Commission now says about its powers under CESA is a statement of what it thinks will help it win this case, and should not be regarded as an authoritative statutory interpretation by a neutral arbiter.

B. The Question of "Biological Distinctness".

The Commission's current position on species definition is that "the group of populations proposed to be delisted [must be] a *biologically distinct* 'species' from the listed species" (Comm'n Br. at 20; emphasis added.) The Commission does not explain what it means by "biologically distinct". As we emphasized in our opening brief, the distinguishing feature of salmon is that they return to their natal streams to spawn. From this perspective, the population of salmon in any single river or stream is "biologically distinct".

But a small percentage of the salmon also stray into other rivers,

providing an ongoing mixing process that makes all coho salmon the same species, and not distinct at all. As a matter of human nature, those interested in regulatory restrictions they think will benefit salmon must "split" the salmon species into smaller units in order to invoke CESA, because the larger coho salmon species is in no danger of extinction whatsoever; examples can be purchased in many supermarkets for consumption.

The Commission's regulatory ambitions have generated a focus upon DNA testing in the hopes of finding differences among salmon populations, but the testing has largely failed to do so. The Commission relies on what it calls a Department of Fish and Wildlife determination "that these two groups qualified as separate "species" under CESA, based on extensive scientific analysis of reproductive isolation and genetic differences between the two groups". (Comm'n Br. 10 (citing AR1/6:1632-37).) While the Commission accurately identifies the critical portion of the record on which it relies, review of that record does not confirm the Commission's characterization of it.

The cited pages first address the DNA testing for genetic differences, with "the most comprehensive study" noting "little evidence of geographic pattern in the observed variation". (AR1/6:1634.) Moreover, there is a "generally low level of [genetic] diversity in California coho salmon".

(AR1/6:1636.[1]) This underscores the general uselessness of genetic data in making species determinations for salmon. For all practical purposes, all California coho salmon (and probably all coho salmon) are the same species, and splitting them into small groups protects no truly unique genetic material, undermining entirely any "Noah's Ark" rationale for CESA.

However, with respect to the inclusion of stocks south of San Francisco, the Department found that "populations south of San Francisco may be separable from other California stocks". (AR1/6:1636.) The Department simply punted on the ultimate question of whether to lump or split coho species, merely stating that "the status review focuses on information for all populations" and that the federal ESU definitions are "justifiable constructs". (AR1/6:1637.) As explained in further detail below, nearly any construct in salmon species definition may be "justified" once one abandons the statutory "species" definition.

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[1] The *CFA* court suggested that was "due possibly to 'one or more severe reductions in population size'," *CFA*, 156 Cal.App.4th at 1543, but the Department noted that the cause could also include "some level of homogenization of stocks" (AR1/6:18). It is important to remember that the Commission's initial finding that coho south of San Francisco "had declined by an estimated 98% from historical levels" (Comm'n Br. at 7) were purely fictional, as demonstrated in the Petition (AR1/2:559-626), *Fisheries* article (AR1/3:899-917), and numerous other submissions by plaintiffs.

The Department's 2002 species determination does expressly refer to the federal ESU policy. (AR1/6:1636-37.) It recites the two core components of that policy: reproductive isolation and importance to the evolutionary legacy of the species, but does not discuss them. The general impression from review of the record is that the Department simply deferred to application of the federal ESU concept.

Unfortunately, the Commission is now trying to substitute "biological distinctness" for the two-pronged federal ESU approach. This is a position invented for this case alone, as the Commission's record citations demonstrates. Again, the Department's species review correctly cites both components of the ESU policy (AR1/6:1636), yet the Commission cites the very next page of the record for the false proposition that it has previously defined "an ESU under CESA as 'a group of interbreeding organisms that is reproductively isolated from other such groups'" (Comm'n Br. at 21; *see also* Comm'n Br. at 34 (arguing that the Commission has a different "focus").)

The Commission has never promulgated any ESU definition. Rather, it is attempting by assertion of counsel herein to exterminate the second prong of the ESU analysis, because there is no way that the fish south of San Francisco can be important to the evolutionary legacy of the larger, true coho salmon species. What the federal policy is insisting upon

is some evidence of important adaptive differences, or other important and useful features in a group of fish, evidence of which "must come from sources other than protein electrophoresis," *i.e.*, genetic testing. 56 Fed. Reg. at 58,615. The Commission argues that genetic distinctiveness is a "critical factor" for defining species, but it ignores all the evidence to the contrary cited in our opening brief (at 60 & n.15), and its record citations do not support its claims.

For example, the Commission cites 56 Fed. Reg. at 58,618, but all that reference says is that genetics data is one of many "available lines of evidence" and that "data from protein electrophoresis or DNA analysis can be very useful because they reflect levels of gene flow that have occurred over evolutionary time scales". Here, however, the genetics data (discussed in detail in Point II(A) below) does not compel any particular choice for species definition, as it shows little distinctiveness across all the coho populations. The critical factors under the ESU policy are not genetics data, but the two factors in the Policy: reproductive isolation and importance to the evolutionary legacy of the species. *Id.*

Abandoning these critical factors in favor of defining a "species" or "subspecies" based on the amorphous requirement of "biological distinctness" is utterly standardless inquiry. Every two fish are "biologically distinct" in some sense, as their DNA is not identical.

Jettisoning the concept of "importance" undermines the rationale for granting the Commission broader listing powers in the first place. The Legislature did not intend to grant the power to list any group of animals the Commission wished to protect; the rationale for extending the Commission's power was that the protection of smaller groups was sometimes necessary for "protecting the species as a whole". *CFA*, 156 Cal.App.4th at 1546.

To the extent this Court accepts the Commission's power to delve beneath "species" and subspecies at all by accepting the law of the *CFA* case,[2] that law confers only the power to implement the federal ESU policy, not some newly-asserted power to list whatever is "biologically distinct". We demonstrate below that the petition offered ample evidence that treating the fish south of San Francisco as a separate unit may be warranted.

C. The Question Whether Coho South of San Francisco Meet the Statutory Definition.

We would agree with the Commission that a critical and relevant portion of the petition was its demonstration that the fish south of San Francisco are not "a biologically 'threatened' or 'endangered' species, *as*

[2] The Commission correctly points out that the Court did not grant review on that question (Comm'n Br. at 20 n.9), but plaintiffs nonetheless encourage the Court to give the Commission as much guidance on the question of species definition as possible, as the Commission is truly rudderless in this area.

defined in CESA". (*Cf.* Comm'n Br. 20; emphasis added.) The definition of an endangered or threatened species under CESA contains two critical concepts: it focuses on the status of a "native" group of animals within their "range". Fish and Game Code §§ 2062, 2067.

First is the question of whether fish are "native" to an area; introduced fish are not native and do not qualify. The second and related concept is one of "range"; range connotes an area with habitat that supports naturally self-sustaining populations of fish. The Legislature contemplated that there were naturally self-sustaining populations of animals in a range, that they are threatened with extinction by reason of "man's activities" (Fish and Game Code § 2051), and that it was in the public interest to employ "all methods and procedures which are necessary to bring any endangered species or threatened species to the point where the measures provided by" CESA are no longer necessary (*id.* § 2061). The Legislature did not contemplate that CESA would be misused to protect failed hatchery experiments involving non-native fish outside their natural range.

The Commission now argues that "range" as employed in the statute merely means where the fish are now, even if they were artificially introduced. (Comm'n Br. at 38.) This was an express component of the Commission's second Finding, wherein the Commission asserted that by starting hatcheries south of San Francisco, a "range expansion" was

achieved which meets the statutory definition. (AR1/4:1224.) This is not a reasonable interpretation of the statute, which must be construed as a whole.

A range expansion achieved by human intervention is at odds with the statutory requirement that the species be "native". It is also contrary to the Legislature's specific command that the Fish and Game Code focus upon "wild fish," not hatchery fish. Fish & Game Code § 47; *see also CFA*, 156 Cal.App.4th at 1552 ("the Legislature intended that "wild fish," as opposed to hatchery fish, be protected under the CESA"). It is contrary to the entire idea of the statute as recovering that which Nature once established, and man depleted.

D. In the Unusual Circumstances Here, a Population Need Not Be Healthy and Recovered to Be Delisted.

After correctly stating the question as to whether the group of fish in question meets the CESA definitions for endangered or threatened status (Comm'n Br. 20), the Commission then asks the Court to ignore the "native" and "range" portions of the definitions and focus exclusively upon whether or not the fish are "in serious danger of becoming extinct" or threatened with extinction (*id.* at 23). There is no dispute that without human intervention by hatchery propagation, the coho south of San Francisco would vanish—reestablishing the natural state of affairs.

The Commission argues that its regulations provide that it may delist a species "if the Commission determines that its continued existence is no

longer threatened by any one or any combination of factors provided in subsection (i)(1)(A) above". 14 Cal. Code Regs. § 670.1(i)(1)(B). At the outset, because the Commission has made an error in assuming any continued existence for natural, self-sustaining populations of wild coho south of San Francisco, the "continued existence" of the coho is "no longer threatened" within the terms of the regulation; the species had no continued existence in the first place. In that sense the regulation is no bar to delisting. Moreover, the regulation by its terms does not purport to limit the Commission's discretion to delist on other grounds, and the note prefacing the regulations explains that they were not intended to be substantive at all, but rather to provide "a smoother and more effective implementation of the California Endangered Species Act (CESA) through *procedural* clarity".

To the extent that the Commission now interprets its regulation to forbid consideration of the factor whether a "native" species within its "range" ever existed in the first place, the regulation (or its interpretation by counsel) is not a lawful implementation of CESA, for the concepts of a "native" species threatened within its "range" are core values of the statute which cannot be discarded at will.

The Commission acknowledges that the regulation is only valid if "reasonably necessary to implement the purpose of the statute". (Comm'n Br. at 24-25.) The Commission does not explain why it must discard the

core of the species definition. It is extraordinary indeed for an agency to fashion a rule that would prevent it from correcting its own errors, and impossible to imagine a lawful rationale for doing so.

The statute itself provides that petitions for listing and delisting should identify the range of the species ("detailed distribution map") and include information on "any other factors that the petitioner deems relevant". (Fish and Game Code § 2072.3.) There is no indication that the Legislature sought to limit delisting petitions to the population status of the species. To the contrary, the Legislature repeatedly emphasized that the Commission should employ "the best scientific information available (*id.* §§ 2074.6 & 2077), and not put blinders on.

The Commission argues that it is entitled to bias the process against delisting, creating an asymmetry nowhere present in the statute, by reason of "CESA's overarching species conservation purpose". (Comm'n Br. at 25.) This is bad logic and bad policy. As a matter of logic, CESA's policies are only to be invoked with respect to groups of animals that meet the criteria for listing; it is bootstrapping to invoke the policy to expand what may be listed. *Cf. Trout Unlimited v. Lohn*, 559 F.3d 946, 955 (9th Cir. 2009) (referring to the "'neutral' task of defining a species")

It is bad policy in this case, because by expanding listing authority to non-native stocks outside their natural range, damage is done to the wild,

self-sustaining steelhead stocks that are within the proper ambit of the statute. The Commission claims that plaintiffs ask it to "progressively write off individuals or populations of imperiled animals and plants at the edges of their ranges," (Comm'n Br. at 27), but the whole claim here is that south of San Francisco is beyond the range of the coho, and there is nothing wrong with interpreting CESA to foster healthy, naturally self-sustaining populations of wild fish rather than sustaining failed hatchery experiments inimical to wild fish.

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

A. The Petition Presented Sufficient Information to Demonstrate that Coho South of San Francisco Form a Distinct Unit.

With regard to the evidence amassed in support of the petition, the Commission claims plaintiffs "support" the conclusion that "coho salmon south of San Francisco are part of the listed Central Coast Coho species". (Comm'n Br. 27.) This is utterly untrue, other than in the sense that plaintiffs acknowledge that the Commission did lump coho south of San Francisco in with the coho north to Punta Gorda, creating a "Central Coast Coho species" unknown before the rise of endangered species act decisionmaking. At all relevant times, however, plaintiffs have contended that the available evidence supported the Commission's initial decision to

treat the fish south of San Francisco as a distinct unit.

The Commission argues, based on what it mischaracterizes as the "latest scientific research," that there are "two areas of 'genetic discontinuity/transition' for coho salmon," one at Punta Gorda and one at the California border. (Comm'n Br. at 22 (quoting *CFA*, 156 Cal.App.4th at 1542).) There is, of course, no area of genetic discontinuity at the border as the fish are not respecters of borders; the Commission is simply careless in its discussion of the 2002 evidence. *See CFA*, 156 Cal.App.4th at 1542 (referring to second alleged point north of the border at Cape Blanco, Oregon). The *CFA* court cited a 1995 federal status review which the Department interpreted as meaning: "populations north and south of Punta Gorda likely experience some level of gene flow restriction that is greater than that experienced within each geographic region". (AR1/6:1635.)

Properly understood, that statement means nothing, because it is a truism for any groups of fish to the north and south of any point one picks on the California coast. This is because salmon constantly stray, with more straying to nearby rivers than far ones. As demonstrated below, genetic variance is a simple function of distance. Putting fish in any two separate groups defined by any point along the coast will mean, on average, that distances within the two groups are less than distances between them.

As noted above, as late as 2002, the Department had found that

"[p]opulations south of San Francisco may be separable from other California stocks," but "more data are needed". (AR1/6:1636.) In 2005, federal scientists completed a "comprehensive study" providing 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 demonstrate unique genetic features of the populations south of San Francisco, and utterly refute Commission's claim that the south of San Francisco fish must be lumped in with more northerly fish.

1. Pairwise F_{ST} is a measurement to assess levels of gene flow, with low values showing that the fish are more closely related than those with larger values. Here the pairwise F_{ST} data shows a general pattern of increasing genetic difference as a function of geographic distance. The data does not indicate any particular breaks or distinctions among populations, and certainly no distinctions so bright as to *require* a division between prospective ESUs:

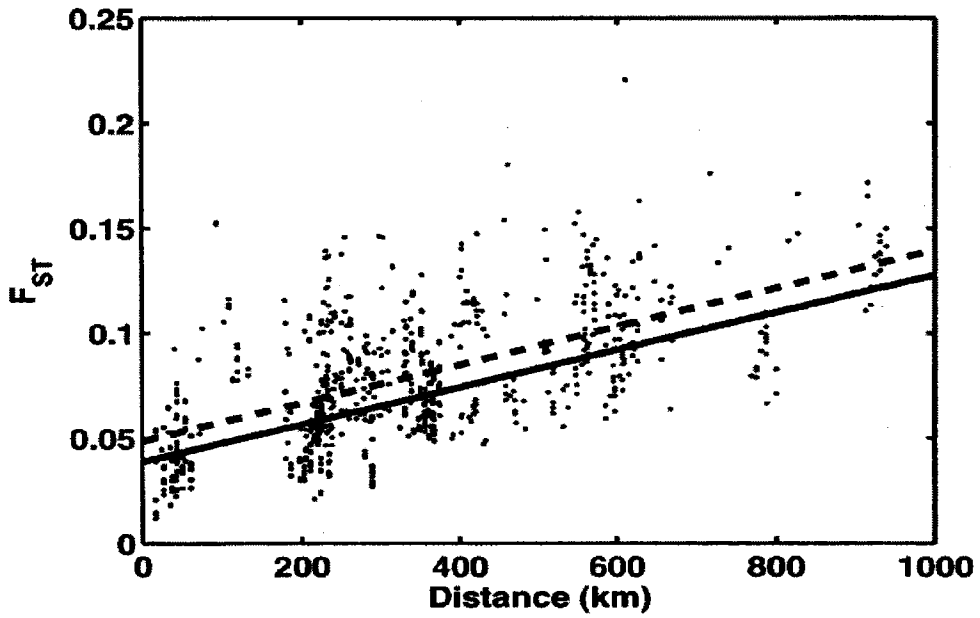

Figure 2.4. Isolation-by-distance in coho salmon based on pairwise F_{ST} and geographic distance for samples from the CCC-Coho ESU (solid line) and throughout coastal California (dashed line). For samples from different basins, geographic distance is calculated as the sum of the length of the coastal contour (omitting major bays such as the San Francisco Bay) between stream mouths and the upstream distance of each sample location. For samples from within the same basin, geographic distance is calculated as the distance "as-the-fish-swims" within the stream network.

(AR1/9:2960.) Viewed from a Coast-wide perspective (dashed line), the same variation by distance relationship holds for the California coast as a whole as compared with just the CCC-Coho ESU solid line (*i.e.*, the regression lines are the same slope, with the coastwide line being higher owing to more genetic differences over the larger area); no pertinent discontinuities appear in the data.

If the Commission's decision to draw the boundary at Punta Gorda were *forced* by the genetic data, the administrative record would demonstrate some sort of distinction at the ESU boundary. The geographic distinction that does appear from the F_{ST} data actually supports differentiation of the group south of San Francisco, because NMFS found

that "[e]stimates of pairwise F_{ST} . . . are substantially smaller among basins south of the Golden Gate than elsewhere in the CCC-Coho ESU . . .". (AR1/9:2961). If any subgroup is thus to be deemed "distinct" on the basis of this portion of the genetic analysis, it is the south of San Francisco coho.

2. Review of the data from another tool for looking at microsatellite frequencies confirms the lack of any single "bright line" in selecting grouping for ESU purposes. Phyleogeographic trees are generated by software routines as a means of forcing "lines" between the raw data samples, hence the form:

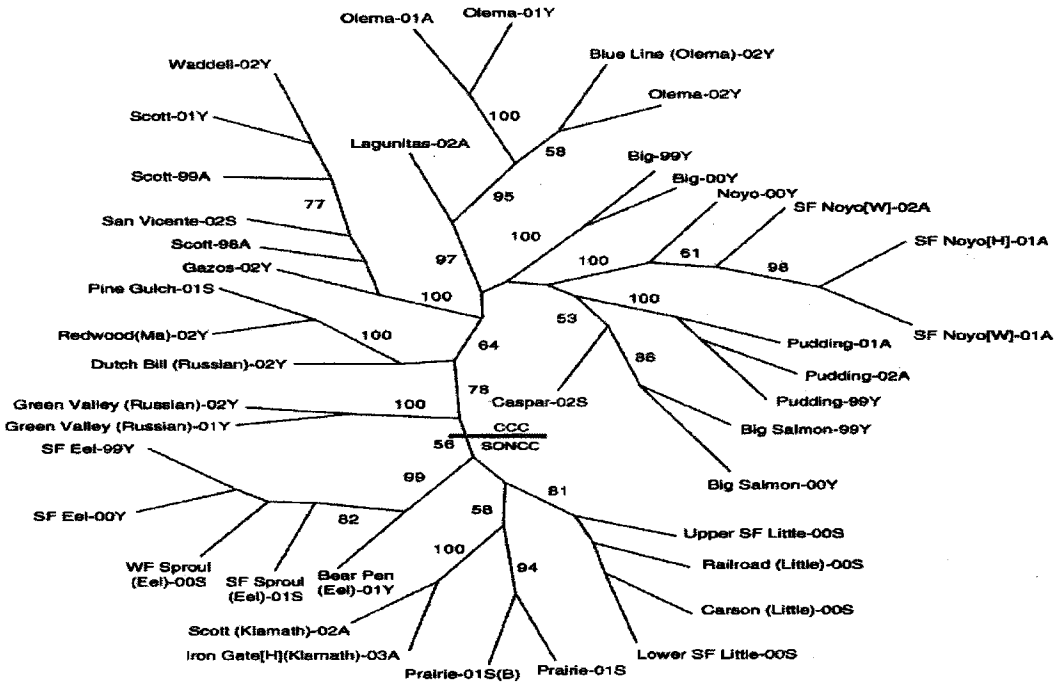

Figure 2.2. Bootstrap consensus tree for coho salmon in California. Consensus tree is based on trees constructed with a neighbor-joining algorithm (Saitou and Nei, 1987) using Cavalli-Sforza and Edwards (1967) chord distances calculated for 5000 data sets generated by bootstrap resampling from data for 18 microsatellite loci. Numbers on internal branches indicate the proportion (>50%) of trees in which the indicated node appeared. Samples are identified by stream, brood year, life stage ("A" indicates adult; "S" indicates smolt or outmigrating juvenile; "Y" indicates young-of-year juvenile), and where appropriate, as being collected from hatchery "[H]" or wild "[W]" populations. Parenthetical information indicates tributary basin (where relevant) or county.

(AR1/9:2958.)

The CCC/SONCC line at Punta Gorda drawn in the middle of this tree is not *compelled* by the data, and the record does not explain the choice; it is taken as a given for purposes of the analysis. The data supports distinguishing the two groups because they are different branches on the tree, just as the group of fish south of San Francisco form a branch on the tree. However, *no genetic principle or rule tells the Commission whether to make the entire tree a "species or subspecies", to divide it in two pieces at Punta Gorda (as here), to divide it into two pieces elsewhere, to make each branch a "species or subspecies", or even to draw a bigger tree with more samples from further up the Coast, in which all California coho might be a single branch, or even all West Coast coho.*

The federal policy on evolutionarily significant units confirms that "often, . . . there will be more than one hierarchical level" (rivers, tributaries, streams, creeks, etc.) which may be considered reproductively isolated. 56 Fed. Reg. at 58,617. "Therefore," continues the Policy in the very next sentence, it is important to identify such units "that contribute substantially to the ecological/genetic diversity of the species as a whole". *Id.* This is precisely the prong of the ESU definition the Commission is now attempting to evade.

In discussing the tree reproduced above, the federal scientists admitted that the "[s]amples from watersheds south of the Golden Gate

(Scott, Waddell, Gazos, and San Vincente creeks) do not fit th[e] pattern" (AR1/9:2957). This comment can only be read to suggest that while partaking of a general "genetic similarity" up and down the West Coast, the south of San Francisco fish are genetically distinct from those further north. Thus again, at the broad-brush level of mere "genetic similarity," one finds differences with respect to the south of San Francisco fish.

3. Finally, with regard to the third form of genetics analysis employed by federal scientists, assignment tests, NMFS geneticists claimed no more than that "they indicate a highly structured set of populations"—not any particular ESU dividing line. (AR1/9:2961.) Their analyses "correctly assigned most (>98%) of fish to their basin of origin", but "[o]f the 72 misassignments between basins, 72% occurred between Waddell, Scott, and San Vincente creeks, all of which are small streams adjacent to one another south of the Golden Gate". (*Id.*) In other words, again the south of San Francisco coho display genetic differences from the other CCC coho populations, suggesting that appropriate analysis would put them in their own subgroup for listing evaluation.

Ironically, an earlier genetic analysis in the record was undertaken in part to examine genetic support for the Commission's initial listing of south of San Francisco coho only. It concluded "[g]enetic distance among sites support [then-]current ESU structure; populations from the Central

California [federal] ESU form a reasonable cluster, joined next by Scott Creek . . .". (ROA:417.) Even the Commission's Finding on the petition acknowledges that "coho salmon south of San Francisco have unique genetic characteristics" (AR1/4:1220), offering no explanation as to why they must be lumped with the rest of the CCC coho fish. All of this information easily meets the standard the Commission sets in its brief: "*some evidence* tending to show that these populations are genetically and/or reproductively distinct from other populations in the same ESU." (Comm'n Br. at 23; emphasis added.)

The Commission argues that plaintiffs have conceded that the fish south of San Francisco are not reproductively isolated enough from the northern fish to constitute their own species, relying upon Dr. Kaczynski's comment that "[t]here is no distinctiveness, genetic, life history, or otherwise, for the residual (hatchery derived) populations in Santa Cruz County streams". (Comm'n Br. at 28, quoting AR1/3:792.) But this misinterprets Dr. Kaczynski's testimony, which is presented to address the second prong of the ESU policy: these fish have no important distinctive characteristics whatsoever that could make them an important component in the evolutionary legacy of the species.

At all relevant times, plaintiffs have contended that all coho are virtually identical genetically *and* that if one wants to make species

decisions based on tiny genetic differences of no importance—the groups not being "distinct" from one another as a practical matter—the genetics data supports drawing a line at San Francisco Bay. (*See also* AR1/3:970-71 (Dr. Kaczynski reviews the genetics data showing that populations south of San Francisco have "unique genetic characteristics).[3])

B. Plaintiffs Presented Sufficient Evidence That the Coho South of San Francisco Were Not Native Fish Within Their Range.

The Commission characterizes the petition as asserting that "these coho salmon are not 'important enough to protect' and are not 'significant'" (Comm'n Br. at 27), but does not seriously dispute plaintiffs' factual presentation. Instead, the Commission argues that none of the information presented is even relevant.

The Commission argues that whether or not a group of fish that may be characterized as "distinct" is important or not to the evolutionary legacy of the species is wholly irrelevant to the listing decision, because CESA does not authorize the Commission to consider such importance. (Comm'n Br. at 32.) We are well beyond that argument. CESA does not, by its terms, authorize the Commission to list anything but species and subspecies

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[3] The Commission argues that plaintiffs "waived the [genetics] argument by failing to raise it in their delisting petition" (Comm'n Br. 28), but the issue was raised throughout the administrative process by comments such as these. The evolving data and arguments advanced in support of the petition were generated by the Commission's evolving responses to it.

at all—taxonomically-defined groups of animals one could look up in a reference work. In *CFA*, the Court of Appeals granted the Commission the power to follow the federal ESU policy, and list "species" in congruence with its tenets, including the second critical factor of importance to the evolutionary legacy of the species, so importance is now relevant.

It is certainly true that one can find statements in the record like "every population of coho salmon needs to be included in some coho salmon ESU". (Comm'n Br. at 33, 35.) Acceptance of such statements would endorse a total failure by the Commission to do the job entrusted to it by statute and figure out which groups of fish merit listing and which don't. Either the Commission should list "species" and "subspecies" alone, in which case every population will be listed (or not), or it has discretion to consider the circumstances of particular populations and groups of populations, and some populations or groups of populations may not make the cut. This is not "gerrymandering" (*cf.* Comm'n Br. at 33); it is rational resource management.

The Commission also argues that the importance criterion only applies to "a group of populations being considered as an ESU, rather than to individual populations". (Comm'n Br. at 34.) This is sophistry. The coho south of San Francisco are not individual populations. There are multiple remnant hatchery populations in multiple streams, just as there are

multiple populations in rivers and streams north of San Francisco. With the power to pick and choose among single rivers and groups of rivers (from two to potentially hundreds), *any collection of which might constitute an "ESU,"* comes the responsibility to exercise that power in a fashion consistent with the Legislative mandate.

There is simply no logical distinction, whatever the Commission may argue or cite, between choosing the collection of streams that constitutes an ESU and determining whether or not to include one or more streams in the collection". (*Cf.* Comm'n Br. at 35.) It is even more irrational for the Commission to argue that because it fashions an ESU consisting of a collection of rivers and leaves some out, this is a "recipe for piecemeal extinction". (*Id.*) The *CFA* court trusted the Commission to make the judgment as to which groups of fish smaller than a species might be included in an ESU, *and which might not be included.* The Commission's apparent unwillingness to responsibly exercise the very power it sought—other than by listing everything—should again cause this Court to question any concept of deference in this context.

Remarkably, when it comes to the factual evidence submitted in the petition, the Commission makes no serious effort to discuss or analyze it in any way—its focus is upon deeming the evidence entirely irrelevant. It is certainly true that the Commission itself discussed some of the evidence in

its Findings, and the Commission's attorneys did discuss some of the evidence in the briefs below. The weight of the evidence presented by plaintiffs easily meets the standard for further consideration of the petition. If hundreds of pages of detailed scientific analysis and a paper published by the American Fisheries Society is not sufficient for a delisting petition to meet the "may be warranted" standard, no delisting petition might ever be accepted by the Commission.

When this Court sweeps away the thickets of arguments that evidence such as that presented in the petition is irrelevant, the Commission may finally be able to analyze the petition in a straightforward fashion, but to date its decisionmaking has been fatally handicapped by its profound misconceptions concerning the law.

C. The Commission's Factual Positions Do Not Sufficiently Controvert the Petition Such That a Reasonable Person Would Deny That the Petitioned for Action May Be Warranted.

Rather than review or discuss the evidence presented by plaintiffs, the Commission attempts an end run around all of it with the remarkable assertion that coho south of San Francisco are important to the survival of all coho. It is certainly true that the record contains statements to this effect. The problem with them is that they make no sense and are not based on evidence.

Hidden beneath conclusory statements concerning the existence of

"gene flow between south of San Francisco coho and coho populations to the north" or "a larger metapopulation process" (Comm'n Br. 36 (quoting AR1/4:1198)) are the facts. The facts are that the gene flow is out of the north, and into a black hole in the south. It is not a perfect black hole; a few naturally-spawning coho might stray back north, but on any evolutionary time scale, the coho south of San Francisco cannot persist, and because of that, can contribute nothing to the evolutionary legacy of the species.

If there is to be any rule of law insofar as wildlife management in California is concerned, statements like "what seem to be ephemeral populations today may be essential to long-term viability of the species as a whole at some time in the future" (Comm'n Br. at 36; quoting AR1/4:1198-99) must be recognized as speculation, not substantial evidence needed to support the Commission's denial of the petition. *The record is devoid of a single example in biological history where large, healthy, non-listed populations of a species depended upon the continued existence of a handful of populations at or beyond (as here) the range of the species.* With all due respect, the proposition that the "edge of the range is often the most important to protect" is a proposition utterly unknown to biology, and unsupported by any data or example known to mankind, until it was made up out of the whole cloth in an effort to defeat this petition. (Comm'n Br. 40.)

In effort to bolster these conclusory statements, the Commission does offer four lines of speculation, but not evidence, as to the possible value of the coho south of San Francisco. (Comm'n Br. 36-37 (quoting AR1/5:1255).) First, they might "add to the genetic diversity of the ESU". As we have seen, however, they have no genetic differences of any importance whatsoever. Second, they might provide a means of "recolonization of habitat where they had previously become extirpated". But there is no such place; no one is proposing to take fish from the south and use them to bolster healthier populations to the north. Third, they might provide a "safety net" in case other subpopulations are extirpated. But there are thousands of coho populations around the Pacific; utilizing these streams as a safety net makes no sense. Fourth, they might "lead to range expansion". But the Commission and its predecessors have tried to artificially expand the range south of San Francisco for more than a hundred years through failed hatchery attempts. *It doesn't work.*

The Commission also argues that hatchery fish can, "under certain circumstances, benefit natural stocks within the ESU". (Comm'n Br. at 43.) This may well be true, but there are no natural stocks south of San Francisco; there are merely the remnants of hatchery plants and an occasional stray, which individually and collectively cannot constitute wild, self-sustaining populations because of the unsuitability of the habitat. The

Commission may refer to "conservation-based hatcheries" which are alleged to "recover" the coho (Comm'n Br. at 41-42), but one cannot recover that which never was—a self-sustaining wild population. The Commission's claim that hatcheries south of San Francisco, such as Big Creek hatchery, "can assist" in the recovery of coho (*id.*) is supported by record citations to no more than theory, speculation or failure. (*E.g.*, AR1/6:1637 ("may have a role in its recovery under certain conditions"); AR1/6:1706 ("have the potential to assist"); AR1/11:3563 ("it is unclear if they have had any beneficial effect on natural spawner abundance").) Plaintiffs are very familiar with Big Creek Hatchery, as it sits on land owned by owners of plaintiff Big Creek Lumber Company, who has been instrumental in supporting the hatchery. (AR1/3:727, 756, 782.) They want the hatchery to help the cause of species conservation by focusing on native steelhead, not injure it by fostering non-native coho.

The Commission finally suggests that the steelhead need not concern it, because they are more numerous and prey upon the coho. (Comm'n Br. at 44) It is true that "hold over hatchery steelhead" (AR1/1:151) and "other non-native rainbow trout" (AR1/1:171) may eat coho, but the Commission's management of steelhead and trout is not pertinent. What is pertinent is that both theory and evidence document the adverse impact of introducing coho on steelhead. Coho spawn earlier and their eggs are larger than steelhead,

they start life with a size advantage, giving them a competitive edge in foraging. (AR1/2:583.) Researchers on Scott Creek (south of San Francisco) have collected and analyzed data showing that "[h]igh coho abundance appears to suppress steelhead". (*Id.*)

The Commission argues that effects on steelhead are legally irrelevant because "[n]othing in CESA authorizes the Commission to refuse to list or delist a species based on that species' predation on or competition with another species, even if that species also is endangered or threatened". (Comm'n Br. at 44.) But nothing in CESA authorizes the Commission to list non-native species outside their ranges either, and the fate of the steelhead provides an important reason why the Commission's insistence upon expanding listing powers does not further the ultimate purposes of CESA. More generally, if CESA is so elastic as to allow the Commission power to define species by reference to any particular group of animals anywhere, it surely does not constrain the Commission from considering effects on steelhead in this context.

Conclusion

For the foregoing reasons, and the reasons stated in our opening brief, the Court of Appeals should be reversed and the Superior Court's writ of mandate reinstated, such that the Commission is ordered to accept the petition for review. In that process, the Commission would benefit

immensely from this Court's guidance concerning species definition issues.

DATED: July 15, 2013.

Respectfully submitted,

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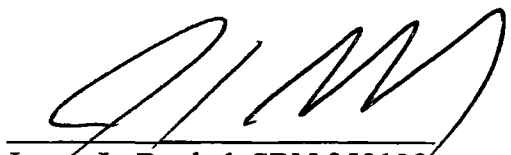
CERTIFICATE OF COMPLIANCE

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 6,918 words.

DATED: July 15, 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 July 15, 2013, true copies of Opening Brief on the Merits were placed in envelopes addressed to:

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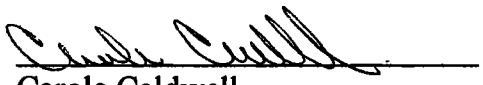
which envelopes, with postage thereon fully prepaid, were then sealed and deposited in a mailbox regularly maintained by the United States Postal Service in Portland, Oregon.

I declare under penalty of perjury that the foregoing is true and correct and that this declaration was executed this 15th day of July, 2013, at Portland, Oregon.



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