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Mr. John Carlson, Executive Secretary
California Fish and Game Commission
1416 Ninth St.
Sacramento, Ca. 95814

October 18, 2006

Re: Coho petition to delist coho south of San Francisco

Dear Mr. Carlson-

I am a biology professor at California State University, Bakersfield and have 30 years experience in the analysis of fish remains recovered from archaeological sites in California. Much to my amazement my research has applications to conservation issues like the ranges of native California fishes. Among discoveries I have made are to document the prehistoric presence of extinct thicketail chub in the Pajaro-Salinas river system, and threatened delta smelt in Yolo County. Right now my research is central to an argument regarding the southern edge of the range of coho salmon. Several months ago I identified (and had confirmed by two additional experts) the first coho salmon remains in an archaeological site in Año Nuevo State Park. Petitioners have cited the lack of an archaeological record of coho south of the Golden Gate as evidence to delist coho south of San Francisco. There now is positive evidence from the archaeological record of coho south of San Francisco in addition to the credible specimens collected in 1895 in the collection at the California Academy of Sciences in SF.

The petitioners (at least in part) financed research for the recent article:

Kaczynski, V.W. and F. Alvarado 2006. Assessment of the southern range limit of North American coho salmon; difficulties in establishing natural range boundaries. *Fisheries* 31(8): 374-391.

One of the petitioners, Robert O. Briggs, asked me to comment on the Kaczynski and Alvarado (2006) article. I responded to Briggs with the accompanying letter. It has content that should be considered in delisting coho, I hope you will share it with members of the California Fish and Game Commission. My bottom line is that the Kaczynski and Alvarado article is unscientific,

biased, misleading, and should not be considered as credible. The article is an editorial (the function of *Fisheries*) not a paper presenting original scholarship.

Many Thanks,

A handwritten signature in blue ink, appearing to read "Ken W. Gobalet", with a long horizontal flourish extending to the right.

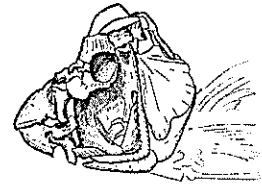
Kenneth W. Gobalet
Professor of Biology

P.S. If you would like citations of my publications, I can easily provide them

enclosure



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Robert O. Briggs
Rancho del Oso
3610 Coast road
Davenport, California 95017

Dear Bob-

October 11, 2006

Nice to visit with you on the phone the other day. I do very much appreciate the financial support you and your colleagues provided my students and me over the years to evaluate the archaeological remains from San Mateo and Santa Cruz counties. In fact, I would know nothing of the contentious issue of the southern extent of the range of coho were it not for your bringing it to my attention. Our 2004 publication in the Transactions of the American Fisheries Society might never have been written were it not for you. I also doubt that I would have located the coho remains from the archaeological site at Año Nuevo were it not for your getting my attention and providing me with the comparative coho skeletons.

You asked for my comments on the article by Kacyzynski and Alvarado (KA).

I was taken back by how KA ignored the numerous qualifications we set forth in the Gobalet et al. (2004) paper and distorted the archaeological record north of San Francisco. A single note by Follett of coho remains in Del Norte County is the only documentation in the archaeological record. The coho or Chinook identification in Mendocino County of mine in Table 6 of the 2004 paper is really only an indication that I am confident that the element is not from steelhead. The archaeological record of coho north of SF consequently is paltry and up until recently the only documentation from coastal California. Two years ago I found a coho vertebra from a 19th century archaeological site (SBA-3005) in Santa Barbara. Because it is historic, it is probably irrelevant to the issue of coho being native south of SF even though the associated species all are local to Santa Barbara. Since we have identified coho remains at Año Nuevo, the entire KA argument based on the negative evidence of archaeology is inappropriate. We now have positive evidence of their presence south of SF and the record is equal to that north of SF where KA seem to accept coho's native status. Will KA dismiss this new evidence?

A colleague has just investigated the CAS coho specimens KA suggested (pg 380-381) were mislabeled following the 1906 earthquake. He did not find evidence of mixing of specimens, miss handling, or that the "chain of custody had been broken" (what does that mean anyway?). The specimens seem to be genuine and from coastal streams south of SF.

The implications of KA (pg 377-379) are that extensive stocking programs are the source of the resident coho. KA provide no evidence that any of the stocking programs were successful. David Montgomery (2003, King of Fish, the Thousand Year Run of Salmon pg 149-177) surveys the history of stocking programs and leaves me wanting evidence that any of the millions of fry or eggs actually produced adult coho (or steelhead) that returned to any of the San Mateo or Santa

Cruz County streams to spawn. Early stocking programs were so unsuccessful that "Releasing hatchery fish into a stream is like dropping suburban teenagers into the middle of the Congo and asking them to walk out of the jungle to the coast. Few will make it" (pg 163). Montgomery (pg164) also quotes Dr. Henry Ward from a AAA symposium in 1938. Ward summarized efforts to transplant and introduce new runs of Pacific salmon: " A few of these experiments have been successful in a degree but none of them in a large way. On the other hand, most of them have been total failures and these include experiments that were large and were carried out by able, energetic and well trained personnel " (1939, pg. 64).

I can understand attempting to make sense out of printed documents from the 19th and early 20th century but the KA go overboard and load their paper with literature that has undergone no peer review. There are ten alone for Jerry Smith at San Jose State. The editorial requirements for an article in "Fisheries" certainly let the authors get by with "gray" literature that would be unacceptable to Transactions of the American Fisheries Society (TAFS). This is strange, because the American Fisheries Society publishes both journals. The standards for publication must be quite different.

I am struck that the authors make no attempt to determine the southern edge of the range of coho. They make no attempt to review the history of the north coast coho or the coho of the SF Estuary. To that end they should have just as thoroughly searched for documentation of coho in streams in the Bay area and up the coast. I am curious, when you hired Alvarado to research the topic, did you ask him to review the historical literature for Marin, Sonoma, Mendocino, Humboldt, and Del Norte Counties? If not, that was an oversight.

I can't help but wonder if the KA article is a response to our 2004 TAFS paper. Shortly after the publication of that paper, I received a phone call from one of your colleagues (whose name I do not remember) expressing his disappointment in what we had said in the paper and implied that something was in the works to contradict what I had printed.

In summary, I am amazed that the KA paper was published in its present form. With its egregious bias and inattention to the positive evidence for coho south of SF, it is a real stretch to call their work "science."

Ken

A handwritten signature in blue ink that reads "Ken Idak". To the right of the signature is a blue circle containing the word "copy" written in cursive.