

new permits or new portions of permits for the provisions listed in the Table above after the effective date of this authorization. EPA will continue to implement and issue permits for HSWA requirements for which Indiana is not yet authorized.

#### **I. What Is Codification and Is EPA Codifying Indiana's Hazardous Waste Program as Authorized in This Rule?**

Codification is the process of placing the State's statutes and regulations that comprise the State's authorized hazardous waste program into the Code of Federal Regulations. We do this by referencing the authorized State rules in 40 CFR part 272. We reserve the amendment of 40 CFR part 272, subpart P for this authorization of Indiana's program changes until a later date.

#### **J. Administrative Requirements**

The Office of Management and Budget has exempted this action from the requirements of Executive Order 12866 (58 FR 51735, October 4, 1993), and therefore this action is not subject to review by OMB. This action authorizes State requirements for the purpose of RCRA 3006 and imposes no additional requirements beyond those imposed by State law. Accordingly, I certify that this action will not have a significant economic impact on a substantial number of small entities under the Regulatory Flexibility Act (5 U.S.C. 601 et seq.). Because this action authorizes pre-existing requirements under State law and does not impose any additional enforceable duty beyond that required by State law, it does not contain any unfunded mandate or significantly or uniquely affect small governments, as described in the Unfunded Mandates Reform Act of 1995 (Public Law 104-4). For the same reason, this action also does not significantly or uniquely affect the communities of Tribal governments, as specified by Executive Order 13084 (63 FR 27655, May 10, 1998). This action will not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government, as specified in Executive Order 13132 (64 FR 43255, August 10, 1999), because it merely authorizes State requirements as part of the State RCRA hazardous waste program without altering the relationship or the distribution of power and responsibilities established by RCRA. This action also is not subject to Executive Order 13045 (62 FR 19885, April 23, 1997), because it is not economically significant and it does not

make decisions based on environmental health or safety risks.

Under RCRA 3006(b), EPA grants a State's application for authorization as long as the State meets the criteria required by RCRA. It would thus be inconsistent with applicable law for EPA, when it reviews a State authorization application, to require the use of any particular voluntary consensus standard in place of another standard that otherwise satisfies the requirements of RCRA. Thus, the requirements of section 12(d) of the National Technology Transfer and Advancement Act of 1995 (15 U.S.C. 272 note) do not apply. As required by section 3 of Executive Order 12988 (61 FR 4729, February 7, 1996), in issuing this rule, EPA has taken the necessary steps to eliminate drafting errors and ambiguity, minimize potential litigation, and provide a clear legal standard for affected conduct. EPA has complied with Executive Order 12630 (53 FR 8859, March 15, 1988) by examining the takings implications of the rule in accordance with the Attorney General's Supplemental Guidelines for the Evaluation of Risk and Avoidance of Unanticipated Takings issued under the executive order.

This rule does not impose an information collection burden under the provisions of the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 et seq.).

#### **List of Subjects in 40 CFR Part 271**

Environmental protection, Administrative practice and procedure, Confidential business information, Hazardous waste, Hazardous waste transportation, Indian lands, Intergovernmental relations, Penalties, Reporting and recordkeeping requirements.

**Authority:** This action is issued under the authority of sections 2002(a), 3006 and 7004(b) of the Solid Waste Disposal Act as amended 42 U.S.C. 6912(a), 6926, 6974(b).

Dated: August 2, 2001.

**David A. Ullrich,**

*Acting Regional Administrator, Region 5.*

[FR Doc. 01-20790 Filed 8-16-01; 8:45 am]

**BILLING CODE 6560-50-P**

## **DEPARTMENT OF THE INTERIOR**

### **Fish and Wildlife Service**

#### **50 CFR Part 17**

**RIN 1018-AH73**

#### **Endangered and Threatened Wildlife and Plants; Re-opening of Comment Period on the Sacramento Splittail Final Rule**

**AGENCY:** Fish and Wildlife Service, Interior.

**ACTION:** Final rule; re-opening of comment period.

**SUMMARY:** We, the U.S. Fish and Wildlife Service (Service), announce the re-opening of the comment period for the final rule on the Sacramento splittail (*Pogonichthys macrolepidotus*). Comments previously submitted need not be resubmitted as they will be incorporated into the public record as part of this re-opened comment period, and will be fully considered in the final rule. We are re-opening the comment period to invite comments and to obtain peer-review on the statistical analysis completed by the Service to re-analyze the available splittail abundance data. We are also inviting additional comments on the status of the species, as first solicited in the January 12, 2001 to February 12, 2001 (66 FR 2828) comment period and in the May 7, 2001 to June 7, 2001 reopening of same.

**DATES:** We will accept public comments until October 1, 2001.

**ADDRESSES:** *Comment Submission:* If you wish to comment, you may submit your comments and materials concerning this proposal by any one of several methods:

1. You may submit written comments and information by mail to the Field Supervisor, Sacramento Fish and Wildlife Office, U.S. Fish and Wildlife Service, 2800 Cottage Way, Suite W-2605, Sacramento, California 95825.

2. You may send comments by electronic mail (e-mail) to: fw1splittail@fws.gov. See the Public Comments Solicited section below for file format and other information about electronic filing.

3. You may hand-deliver comments to our Sacramento Fish and Wildlife Office, during normal business hours, at the address given above.

Comments and materials received will be available for inspection, by appointment, during normal business hours at the address under (1) above.

**FOR FURTHER INFORMATION CONTACT:** For general information, Stephanie Brady, at the above address (telephone 916/414-6600; facsimile 916/414-6713).

**SUPPLEMENTARY INFORMATION:****Background**

The Sacramento splittail (hereafter splittail) represents the only extant species in its genus in North America. For a detailed description of the species, see the Recovery Plan for the Sacramento/San Joaquin Delta Native Fishes (Service 1996) and references within that plan.

Splittail are endemic to certain waterways in California's Central Valley, where they were once widely distributed (Moyle 1976). Sacramento splittail occur in Suisun Bay, Suisun Marsh, the San Francisco Bay-Sacramento-San Joaquin River Estuary (Estuary), the Estuary's tributaries (primarily the Sacramento and San Joaquin rivers), the Napa River and Marsh, and the Petaluma River and Marsh. The Sacramento splittail no longer occurs throughout a significant portion of its former range.

Pursuant to the Endangered Species Act of 1973, as amended (Act), the splittail was listed as a threatened species on February 8, 1999 (64 FR 5963). In this previous listing determination, the Service found that changes in water flows and water quality resulting from export of water from the Sacramento and San Joaquin rivers, periodic prolonged drought, loss of shallow water habitat, and the effect of agricultural and industrial pollutants were significant factors in the species decline.

Subsequent to the publication of the final rule, plaintiffs in the cases *San Luis & Delta-Mendota Water Authority v. Anne Badgley, et al.* and *State Water Contractors, et al. v. Michael Spear, et al.* commenced action in Federal Eastern District Court of California, challenging the listing of the splittail as threatened, alleging various violations of the Act and of the Administrative Procedure Act (5 U.S.C 551 *et seq.*). The Service, as directed by the court, and pursuant to the Act, provided notice of the opening of a comment period regarding the threatened status for the splittail, from January 12, 2001 to February 12, 2001 (66 FR 2828). In addition, the Service re-opened the comment period again from May 7, 2001 to June 7, 2001. The Service is now re-opening the comment period to obtain peer-review and public comment on the statistical analysis used to analyze the abundance data available for splittail, and to seek public comment on the status of the species (see 66 FR 2828). Upon the close of this comment period, the Service will make its determination whether the splittail warrants the continued protection of the Act.

The approach used by the Service to analyze the best scientifically and commercially available splittail data differs from methods employed previously. Within the context of gaining insights into the "status" of a species' abundance, the fundamental statistical issue is one of temporal pattern recognition. Two central statistical questions are posed: (1) Are there any permutations of the data for which the independent variable of *time* (in any one or more of its common units) explains a significant proportion of the variation in abundance measures, and (2) are there any statistically distinct directional trends?

Two recent attempts to statistically examine trends in splittail abundance (Meng and Moyle 1995; Sommer *et al.* 1997) relied primarily on Mann-Whitney U-tests for the nonparametric comparison of two "independent" samples. The two samples in each case were defined by temporal cut points (pre-1985 vs post-1984 for Meng and Moyle (1995); pre-1987 vs post-1986 in Sommer *et al.* 1997) that made sense based on water management (Meng and Moyle 1995) or climatological (Sommer *et al.* 1997) criteria, but are nonetheless statistically arbitrary. Remembering that the basic statistical issue here is temporal pattern recognition, simply dividing a *continuous temporal data set* at some statistically arbitrary point in order to recast the data as categorical data with two categories ("before" and "after") is a statistically crude way to approach temporal pattern recognition. Therefore, the Mann-Whitney U-test approach has low statistical power.

However, even if one were committed to the Mann-Whitney U-test approach owing to considerations of prior precedence (e.g., a final rule on a species listing) and maintaining direct comparability between different studies across time, there are at least two ways the Mann-Whitney U-testing done by Meng and Moyle (1995) and by Sommer *et al.* (1997) can be improved upon. First, the test statistic probabilities known as "p-values" can be derived via exact probability methods such as permutation tests as opposed to relying on asymptotic inference (as all nonparametric textbooks do). Second, stratified Mann-Whitney U-testing can be employed to account for the major influence of water year type on splittail abundance, independent of time. Especially for small sample statistical testing with unbalanced sample sizes, asymptotic estimates of p-values are just that, estimates, and sometimes crucially poor estimates (StatXact-4 User Manual, Cytel Software Corp., 1998). To remedy the mismatch between statistical testing

of small, unbalanced samples using p-values derived from an assumption of very large, balanced samples, exact p-value permutation methods only recently available through advances in computer technology can be utilized (StatXact-4; Cytel Corp., 1998).

Two objectives are addressed below: (1) To present updated and statistically improved Mann-Whitney U-testing results through the application of stratified analyses, exact p-values; and (2) to present a statistical pattern recognition analysis that does not try to force the inherently continuous temporal abundance data into statistically arbitrarily defined categories established as "before" and "after" some chosen temporal cut point used to separate data.

**Updated and Improved Mann-Whitney U-Testing****Background**

The Mann-Whitney U-testing conducted by Meng and Moyle (1995) was based on measures of total abundance (i.e., all age classes), for sets of data that covered the time span of 1980–1992. The Mann-Whitney U-testing conducted by Sommer *et al.* (1997) was conducted separately for "age 0" splittail and "adult" splittail for sets of data that covered variable time spans within the overall time span of 1975 to 1995. The analyses presented here are updated to include data that cover variable time spans within the overall time span of 1975 to 2000.

The analyses presented here focus on five sets of splittail abundance data, (1) CDFG fall midwater trawl, (2) UCD Suisun Marsh Survey, (3) USFWS Chipps Island Survey, (4) CDFG Bay Study midwater trawl, and (5) CDFG Bay Study otter trawl. These sources of data have been described in detail in the draft Sacramento splittail "White Paper" (Moyle *et al.*) as well as more briefly in Meng and Moyle (1995) and in Sommer *et al.* (1997). These are the core data sets that were previously included in both the Meng and Moyle paper and the Sommer *et al.* paper (although Meng and Moyle pooled data from the two CDFG Bay Study data sets and treated it as a single set of data).

Additionally, here, the abundance data within each data set are also standardized to a 0.0–1.0 scale, by dividing all abundance measures within a particular data set by the maximum value for that data set. The "standardized" scores were summed across data sets to produce a new composite score data set reflecting the entirety of the various different survey programs. For example, if all the

abundance data sets were completely in phase with each other and peaked during the same year, the composite standardized score for that year would be 5.0. These composite scores are only calculated for years with entries for all five underlying data sets (only 12 of the 26 years between 1975 and 2000).

The analyses presented here also focus on the abundance data for non-age 0 splittail. From the perspective of species persistence, age 0 fish (YOY fish) do not really "count" biologically until they become recruited into the "adult" population. A species can produce an unlimited supply of age 0 individuals and still fail to persist if few or none of those individuals successfully recruit into the adult population. Thus, from a species persistence perspective, it is the temporal pattern in abundance of non-age 0 splittail that is the pertinent biological, and therefore statistical, issue.

The analyses presented here are for stratified Mann-Whitney U-testing. The stratification factor used is the intensity of flooding of the Yolo Bypass, as a surrogate measure of water year that is specifically relevant to splittail biology, e.g., Sommer *et al.* 1997; draft splittail "White Paper". Flooding of the Yolo Bypass was evaluated based on U.S. Geological Survey flow data for the lower Sacramento River gage at Verona. When flows exceed 55,000 cubic feet per second (cfs) at that gage, water is diverted from the lower Sacramento River into the Yolo Bypass. Flooding of the Yolo Bypass during the period from February through May is significant to the biology of the splittail (e.g., Sommer *et al.* 1997; draft splittail "White Paper"). Splittail are adapted to spawn in late winter through late spring. When flooded during this period, the Yolo Bypass becomes available as a significantly large splittail spawning area. The vegetated shallow water areas of the Yolo Bypass provide pre-spawn foraging habitat for adults, substrates for egg attachment, and shelter for larval fish. The rearing habitat is of high quality (Sommer *et al.* 2001), provided inundation is of sufficient duration.

Post-spawn adult and juvenile splittail emigrating from the Yolo Bypass have ready access to the western Delta and Suisun Marsh and Bay. The Yolo Bypass is likely responsible for a good portion of the juvenile splittail production in wet years. Three "strata" were designated, using years in which flows exceeded 55,000 cfs for: (1) less than 20 days, (2) for 20 to 44 days, and (3) for 45 or more days, during the period of February through May.

Finally, the outcomes of stratified Mann-Whitney U-testing are presented for both the Meng and Moyle (1995) cut point of 1984–85 and for the Sommer *et al.* (1997) cut point of 1986–87.

#### Outcomes

The raw data utilized for stratified Mann-Whitney U-testing are contained in the Administrative Record for this project, and are available upon request (see Addresses section). The exact two-tailed p-values for the various data sets and cut point are presented in Table 1 below. Two-tailed p-values are presented for the sake of consistency and easy comparison with the statistical treatments presented by Meng and Moyle (1995) and Sommer *et al.* (1997). It is important to note here, however, that the precise statistical question of relevance to a "listing decision" is whether there is statistical evidence for a significant decline in splittail abundance after the cut point as compared to before the cut point dates. Consequently, statistical significance is more properly evaluated for this directional alternative hypothesis using one-tailed p-values. For that reason, Table 1 also presents exact one-tailed p-values.

The abundance data from the UCD Suisun Marsh Survey and the USFWS Chipps Island Survey provide statistically significant evidence for declines in mean abundance of adult splittail between the "before" and "after" temporal categories. All of the CDFG data sets (fall midwater trawl, bay midwater trawl, and bay otter trawl) yielded non-significant Mann-Whitney U-test p-values and provide no statistically confirmable evidence for

declines in mean abundance of adult splittail before and after the cut point dates (see Table 1 below).

Because each set of survey data is related to overall abundance of adult splittail in a unique, and probably at least partially non-overlapping manner (see draft splittail "White Paper"), the composite score data set is likely the most useful set of data for decision making. The one-tailed stratified Mann-Whitney U-test exact p-values for the composite scores were 0.24 and 0.40 respectively (Table 1). This outcome corresponds to a 60 to 76 percent chance that the 17 to 18 percent decline in mean composite scores for adult splittail since 1986 and 1984 respectively are biologically real.

Another factor meriting serious consideration when evaluating the Mann-Whitney U-test statistical outcomes is the fact that the available data sets have inherently low statistical power due to small sample sizes and high variability. For example, considering the "composite" abundance scores, and the 1984–85 cut point, the power of this data set to detect a "true" decline of 18 percent (i.e., one-tailed test) is only 14.5 percent (i.e., the type-II error rate associated with the test is excessive at 85.5 percent). In other words, while we have a 24 percent chance (Table 1) of falsely concluding that the apparent 18 percent decline is real, we have an 85.5 percent chance of falsely concluding that the apparent 18 percent decline is not real. Thus, despite the lack of a statistically significant Mann-Whitney test for the composite abundance scores, overall the statistical odds are still very strongly in favor of concluding that the apparent 18 percent decline is biologically real.

The power analysis presented above was conducted using Statistica (StatSoft Corp.) software (Steiger 1999) for calculating power of a two-sample t-test, the parametric analog of a Mann-Whitney U-test. Because t-tests are categorically more powerful than U-tests (e.g., Siegel 1956:126), the power analysis presented above slightly overestimates the true power of the U-test.

TABLE 1.—EXACT TWO-TAILED AND ONE-TAILED P-VALUES FOR UPDATED, AND STRATIFIED MANN-WHITNEY U-TESTS OF ADULT SPLITTAIL ABUNDANCE

[italicized values are significant at the  $p < 0.05$  level and before/after sample sizes are in parentheses]

	1984–85 Cut Point	1986–87 Cut Point
CDFG fall MWT (2-tailed) .....	0.88 ( 9,16)	0.43 (11,14)
CDFG fall MWT (1-tailed) .....	0.44	0.22
UCD Suisun (2-tailed) .....	0.03 (6,15)	0.04 (8,13)
UCD Suisun (1-tailed) .....	0.014	0.02
USFWS Chipps (2-tailed) .....	0.004 (7,9)	0.03 (9,7)
USFWS Chipps (1-tailed) .....	0.0035	0.02

TABLE 1.—EXACT TWO-TAILED AND ONE-TAILED P-VALUES FOR UPDATED, AND STRATIFIED MANN-WHITNEY U-TESTS OF ADULT SPLITTAIL ABUNDANCE—Continued

[italicized values are significant at the p<0.05 level and before/after sample sizes are in parentheses]

	1984–85 Cut Point	1986–87 Cut Point
CDFG Bay MWT (2-tailed) .....	0.78 (5,15)	0.90 (7,13)
CDFG Bay MWT (1-tailed) .....	0.39	0.45
CDFG Bay OT (2-tailed) .....	0.91 (5,16)	0.65 (7,14)
CDFG Bay OT (1-tailed) .....	0.46	0.33
Composite Score (2-tailed) .....	0.44 (5,7)	0.76 (7,5)
Composite Score (1-tailed) .....	0.24	0.40

Note that the 1-tailed p-values are not simply one-half of the 2-tailed p-values because the exact permutation distribution of “U” is often asymmetric for small, unbalanced data sets. This is one of the reasons why standard textbook tabled critical values of “U” can be substantively inaccurate.

Temporal Pattern Recognition Analyses of Splittail Abundance Data

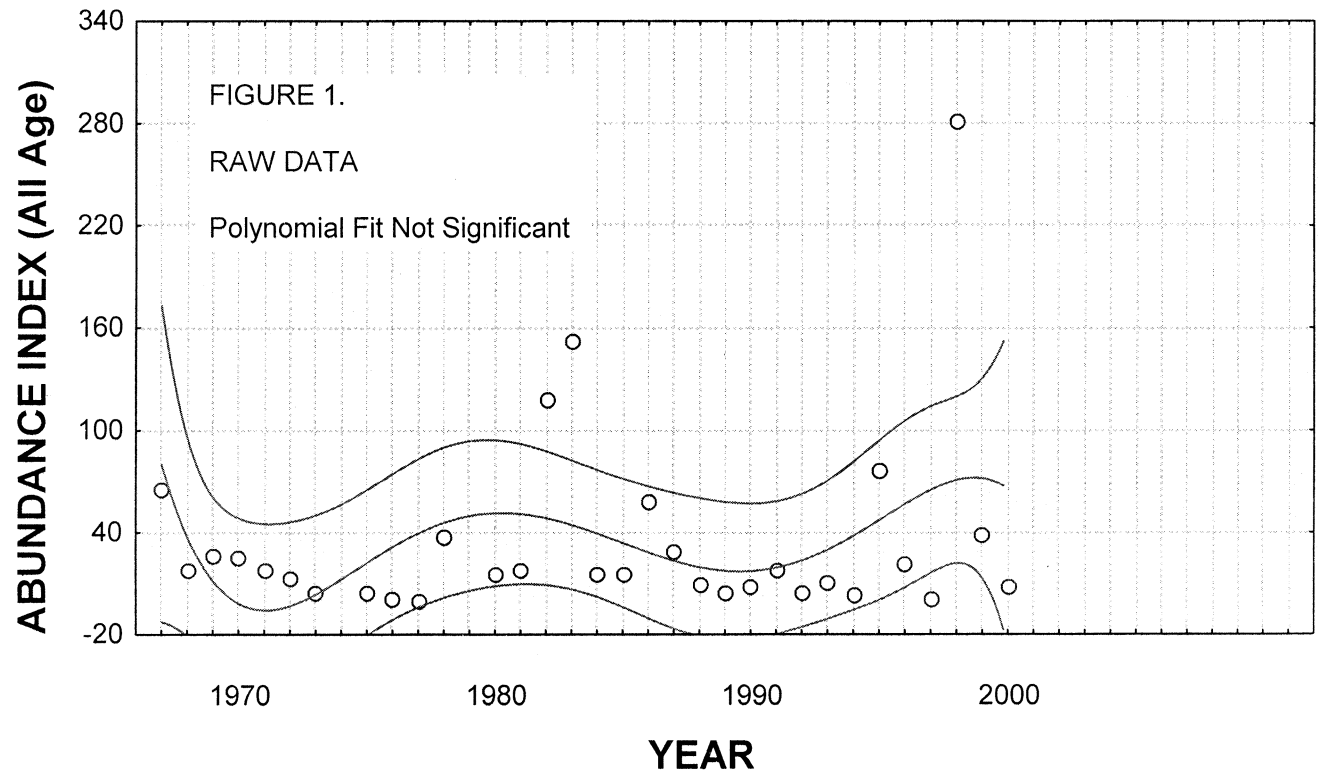
If a species were experiencing a constant linear rate of increase or decline over time, a simple linear plot

of the data would reveal a temporal pattern that could be described by regressing measures of abundance against time. The slope of such a regression would quantify the rate of change in abundance. Taking a similar statistical approach with the splittail abundance data would be the more conventional way to address the issue of temporal pattern recognition. Such an approach is relatively data intensive, so here the regression approach is applied first to the longest running set of

abundance data, the CDFG fall midwater trawl.

There are no linear regressions of the raw data that produce a distinctive pattern recognition. Because splittail abundance (especially age 0 abundance) may be related loosely to events, such as floods, that are periodic, polynomial regression was viewed as an approach worth examining. However, no significant polynomial pattern in the raw data for CDFG fall midwater trawl was evident (Figure 1 below).

Polynomial Regression: CDFG Fall midwater trawl 1967-2000  
 $y=143.199-75.199*x+12.82*x^2-0.87*x^3+0.026*x^4-2.704e-4*x^5+eps$



Because splittail are a relatively long lived species, with a maximum life span of about nine years (Moyle *et al.* 2001 in prep.), temporal patterns in

abundance are not necessarily going to be discernible based on yearly grouping of data. Given the high year to year variability in reproductive performance

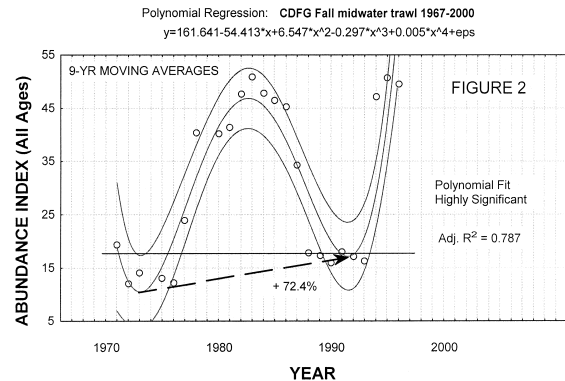
noted for splittail by Sommer *et al.* (1997), the Service explored a polynomial regression on transformed splittail abundance data. The

transformation chosen was a nine year moving average, based on the reasoning that it is variations in abundance over the splittail life span window of nine years that may be most relevant to splittail population dynamics. By using

a nine year moving average, the resiliency of the species due to long life span is incorporated into the analysis.

This approach resulted in a highly significant polynomial fit to the data. Using a fourth order polynomial fit to

nine year moving averages of splittail abundance, time explained 78.7 percent of variation in abundance measures and the regression fit recognized a highly cyclic temporal pattern (Figure 2 below).



There are only enough data to illustrate one full iteration of the cyclicity. That iteration is from trough to trough (only one peak is included in the limited data set). To evaluate overall trends in cyclic data, the proper comparison is from peak to peak and/or from trough to trough in the oscillation cycles. The single trough to trough

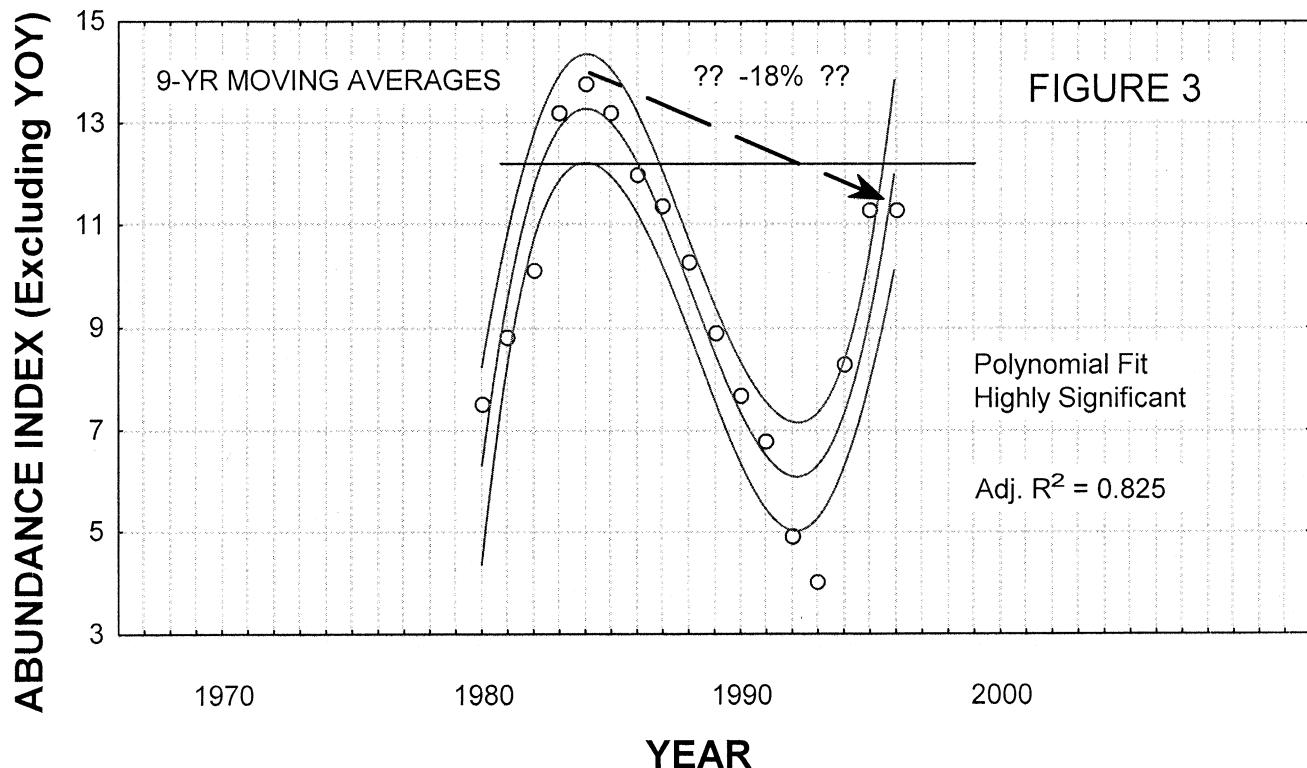
oscillation evident in Figure 2 suggests a nominal 72.4 percent increase between the nine year average centered on 1973 and the nine year average centered between 1991–92. However, that nominal increase is not enough to raise the second trough above the upper 95 percent confidence boundary of the first trough (see the horizontal line in

Figure 2). Thus, statistically, the two troughs are not significantly different.

Conducting a similar regression analysis of the non-age 0 data for the CDFG fall midwater trawl data set yields a similarly strong polynomial fit, this time to a 3rd order regression model (Figure 3 below).

Polynomial Regression: CDFG Fall midwater trawl 1975-2000

$$y = -247.578 + 37.563x - 1.759x^2 + 0.027x^3 + \text{eps}$$



The temporal pattern recognized is again highly cyclic, and time explains 82.5 percent of the variation in abundance data for non-age 0 ("adult") splittail. Because even the CDFG fall midwater trawl survey did not separate catch data into age classes until about 1975, there is not enough data to illustrate either a complete trough to trough or peak to peak iteration of the oscillation cycle. However, if the two "flat" data points at the end of the data set are indeed the top of a second peak, then the nominal change from the nine-year moving average centered on 1984 and the putative peak centered on 1994–95, is about negative 18 percent, and the second peak would be low enough to be below the lower 95 percent confidence interval of the first peak (see horizontal dashed line in Figure 3) indicating a statistically significant decline between peaks. None of the other sets of abundance data yet cover a long enough time span to allow productive use of polynomial regression pattern recognition.

#### Summary of the Service's New Analysis

##### *Focusing on Abundance Data for Non-age 0 Splittail*

Updated, and improved Mann-Whitney U-testing of a composite scores data set, that equally incorporates data from five different splittail survey programs, suggests a 60 to 76 percent chance that the observed 17 to 18 percent decrease in average composite scores post-1986 and post-1984, respectively, are biologically real (as opposed to statistical artifacts). Statistical power analysis reveals that due to extraordinary low power, the odds (85.5 percent) of type II error (falsely rejecting the declining trend in the data) are much greater than the odds (24 percent) of type I error (falsely accepting the declining trend in the data).

Temporal pattern recognition via polynomial regression reveals that splittail abundance data, transformed to nine year moving averages, strongly fit 3rd and 4th order polynomial models and are highly cyclic. One regression highly influenced by age 0 data exhibited a nominal 74.2 percent trough to trough increase in splittail abundance, but that increase was not enough to be statistically significant, as data sets including age 0 fish are highly variable. Another regression, of non-age 0 fish, putatively suggests a significant nominal 18 percent peak to peak decline for the same CDFG fall MWT data that did not test out significantly via the statistically low power Mann-Whitney U-test approach. If the observed pattern holds true as more data are collected, it

would suggest a decline on the order of about 20 percent over about a 10 year period (e.g., a mean exponential annual rate of decline of about 2.2 percent).

Perhaps the most important conclusion to note from the polynomial regression analyses is that although time can be shown to explain a very high proportion of the variability in splittail abundance, on the order of 80 percent, the splittail populations have not been monitored long enough through time (relative to the species life span) to make a statistically strong argument one way or the other regarding the presence or absence of directional temporal trends.

In addition to the aforementioned analysis, the Service, in response to comments received by California Division of Water Resources (CDWR) and California Department of Fish and Game (CDFG) analyzed the data presented in their comments using a simple exponential decay model (i.e.,  $N_t = N_0 e^{-kt}$ ; see Paveglio et al. (1997) for a similar application). CDWR recognizes CDFG as the pre-eminent compilers of the "official" abundance indices, and CDFG's submitted comments revealed apparent trends of decline for adult splittail (age 2+) abundance in 5 of 6 surveys ranging from negative 15 percent to negative 69 percent and averaging negative 35.8 percent (including data from Central Valley Project pump salvage counts [negative 26 percent] and State Water Project pump salvage counts [negative 68 percent] not considered above by the Service). Until enough abundance monitoring has been completed to provide adequately powerful statistical testing, the above apparent trends constitute best available information regarding splittail population status. An average apparent trend of negative 35.8 percent over approximately 15 years corresponds to an average annual exponential rate of decline of 2.9 percent, which in turn suggests that 90 percent decline of the population (from mid-1980's levels) would be reached in about 63 years from present. Similar exponential decay rates associated with the five surveys reported by CDFG as exhibiting apparent declines yield times to 90 percent decline ranging from 14 to 198 years from present with a median estimate of 20 years from present (i.e., 3 of the 5 projections estimate 90 percent decline in 20 years or less from present).

The Service recognizes that projections based on a simple exponential decay model represent a fairly crude first cut at a "population depletion" analysis. However, given, the relatively undeveloped state of available data series, the Service believes that

simple models currently provide the best available, albeit approximate, guidance.

#### Public Comments Solicited

We will accept written comments during this re-opened comment period, and comments should be submitted to the Sacramento Fish and Wildlife Office as found in the **ADDRESSES** section.

You may send comments by electronic mail (e-mail) to: fw1splittail@fws.gov. If you submit comments by e-mail, please submit them as an ASCII file and avoid the use of special characters and any form of encryption. Please also include "Attn: [RIN number]" and return address in your e-mail message. If you do not receive a confirmation from the system that we have received your e-mail message, contact us directly by calling our Sacramento Fish and Wildlife Office at telephone number 916/414-6600, during normal business hours.

#### Author(s)

The primary authors of this notice are Joseph Skorupa and Stephanie Brady (see **ADDRESSES** section).

**Authority:** The authority for this action is the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 *et seq.*).

Dated: August 9, 2001.

**Mary Ellen Mueller,**

*Manager, California/Nevada Operations Office, Region 1, Fish and Wildlife Service.*

[FR Doc. 01-20713 Filed 8-16-01; 8:45 am]

**BILLING CODE 4310-55-P**

## DEPARTMENT OF COMMERCE

### National Oceanic and Atmospheric Administration

#### 50 CFR Part 223

[Docket No. 010521133-1133-01 ; I.D. No. 050101B]

RIN 0648-AP17

**Endangered and Threatened Species; Proposed Rule Governing Take of Four Threatened Evolutionarily Significant Units (ESUs) of West Coast Salmonids: California Central Valley Spring-run Chinook; California Coastal Chinook; Northern California Steelhead; Central California Coast Coho**

**AGENCY:** National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

**ACTION:** Proposed rule; request for comments.