State of California
Department of Fish and Wildlife

Memorandum

Date: January 31, 2013

To: Sonke Mastrup
Executive Director
Fish and Game Commission

From: Charlton H. Bonham
Director

Subject: Initial Review of Petition to List the Clear Lake Hitch (*Lavinia exilicauda chi)* as Threatened under the California Endangered Species Act (CESA)

The Department of Fish and Wildlife (Department) has completed its initial evaluation of the petition to list the Clear Lake hitch under the California Endangered Species Act (CESA) (Fish & G. Code, § 2050 et seq.). The Fish and Game Commission (Commission) received the petition from the Center for Biological Diversity (petitioner) on September 25, 2012, referring it to the Department on September 26, 2012. The Department requested a 30-day extension from the Commission and it was granted on December 12, 2012.

The Department completed the attached petition evaluation report as required by the Fish and Game Code section 2073.5 (See also Cal. Code Regs., tit. 14, § 670.1, subd. (d).). The Department evaluated the petition on its face and in relation to other relevant information to determine in its own opinion whether there is sufficient information to indicate that the petitioned action may be warranted. The Department evaluated the sufficiency of the available scientific information regarding each of the petition components (Cal. Code Regs., tit. 14, § 670.1, subd. (d).).

Having reviewed and evaluated relevant information, including the material referenced in the petition and other information in the Department's possession, the Department believes there is sufficient scientific information available at this time to indicate that the petitioned action may be warranted, and recommends the petition be accepted and considered.

In making this recommendation to the Commission, the Department emphasizes that there is limited quantitative and qualitative information available regarding historical and current population numbers and information on the best scientific approach to enhance the existing population.

However, the Department believes that there is sufficient scientific information at this time, particularly with respect to the most biologically critical factors—decline in historical population levels and loss of spawning habitats—to indicate that the petitioned action may be warranted. (See Fish & G. Code, § 2073.5, subd. (a)(2); Cal. Code Regs. tit. 14, §670.1, subd. (d).).

If you have any questions or need additional information, please contact Dan Yparraguirre, Deputy Director of the Wildlife and Fisheries Division at (916) 653 -4207, or Stafford Lehr, Chief, Fisheries Branch at (916) 327-8840.

Attachment

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State of California
Natural Resources Agency
Department of Fish and Wildlife

REPORT TO THE FISH AND GAME COMMISSION

EVALUATION OF THE PETITION

FROM THE CENTER FOR BIOLOGICAL DIVERSITY

TO LIST CLEAR LAKE HITCH (*Lavinia exilicauda chi*) AS A THREATENED SPECIES UNDER THE CALIFORNIA ENDANGERED SPECIES ACT

January 2013

Clear Lake hitch adult. Photo courtesy of Rick Macedo

Charlton H. Bonham, Director
Department of Fish and Wildlife

INTRODUCTION

The subject of this evaluation report is the "Petition to List the Clear Lake hitch (*Lavinia exilicauda chi*) as Threatened Under the California Endangered Species Act (CESA)" (Petition). The Petition was submitted by the Petitioners to the Fish and Game Commission (Commission) on September 25, 2012, and referred to the Department of Fish and Wildlife (Department) for an initial evaluation pursuant to Fish & Game Code section 2073.5. (Cal. Reg. Notice Register 2012, No. 41-Z, p. 1502.). This evaluation report is intended to inform the determination by the Commission as to whether the Petition, when considered with this evaluation report and other related information before the Commission, provides sufficient scientific information to indicate the petitioned action may or may not be warranted. (See generally Fish & G. Code, §§ 2073.5, 2074.2; Cal. Code Regs., tit. 14, § 670.1, subds. (d) (e).) In its advisory capacity to the Commission, the Department's charge and focus is scientific. Consistent with controlling law, the Department has conducted an initial review of the Petition and bases its recommendation to the Commission focused on the sufficiency of scientific information. (Cal. Code Regs., tit. 14, § 670.1, subd. (d)(1).)

Petition Process and Standards

A petition to list or delist a species under CESA must 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 other factors the Petitioner deems relevant." (Fish & G. Code, § 2072.3.)

The role of the Department is to evaluate the Petition on its face value and in relation to other relevant information the Department possesses or receives, and submits to the Commission a written evaluation report supporting its recommendation of whether or not current and sufficient information exists to indicate whether the petitioned action may or may not be warranted. (Fish & G. Code, § 2073.5, subd. (a)(2).) The Department's finding and recommendation to the Commission is based on an evaluation of the scientific information relevant to the topic areas in the controlling regulation. (Cal. Code Regs., tit. 14, § 670.1, subd. (d)(1).)

The geographic context for the Department's analysis and recommendation is the species' range within California. (*California Forestry Association v. California Fish and Game Commission* (2007) 156 Cal. App. 4th 1535, 1551.)

Summary of Key Findings

Having reviewed and evaluated relevant information, including the material referenced in the Petition and other information in the Department's possession, the Department believes there is sufficient scientific information available at this time to indicate that the petitioned action may be warranted. In making this recommendation to the Commission, the Department emphasizes that limited qualitative and quantitative

information exists on both historical and current population numbers and information on the best scientific approach to enhance the existing population.

However, the Department believes there is sufficient scientific information at this time, particularly with respect to the most biologically critical factors (decline from historical population levels and loss of spawning habitats) to indicate that the petitioned action may be warranted. (See Fish & G. Code, § 2073.5, subd. (a)(2); Cal. Code Regs. tit. 14, § 670.1, subd. (d).)

Background on Clear Lake Hitch Life History and Ecology

The Clear Lake hitch is only found in the watershed of Clear Lake, California. Therefore all information on the species is relevant to conservation and management of Clear Lake hitch within California.

Hitch are members of the cyprinid family (Cyprinidae) with laterally compressed bodies, small heads and upward pointing mouths. They can grow to more than 35 cm standard length (SL) and their long anal fin with 11-14 rays separates the species from other California minnows. Clear Lake hitch are a lake-adapted form distinguished from the Sacramento hitch by their deeper body, larger eyes, larger scales and more gill rakers (numbering 26-32) (Hopkirk 1974). Adult fish appear yellow-brown to silvery-white on the back. The body becomes deeper in color as the length increases (Moyle 2002). There is little change in pigmentation during the breeding season (Hopkirk 1974). Hopkirk (1974) described them as a lake-adapted subspecies primarily because of the greater number of fine gill rakers. The deep, compressed body, small upturned mouth, and many long slender gill rakers reflect the zooplankton-feeding strategy of this pelagic forager (Moyle 2002). Clear Lake hitch greater than 50 mm SL feed almost exclusively on the genus *Daphnia* (Geary 1978; Geary and Moyle 1980). Juveniles less than 50 mm SL are found in shallow littoral zone waters and feed primarily on the larvae and pupae of chironomid midges, planktonic crustaceans including the genera *Bosnia* and *Daphnia*; and historically on the eggs, larvae, and adults of Clear Lake gnat (*Chaoborus astictopus*) (Lindquist et al. 1943; Geary 1978). The larger size of Clear Lake hitch in comparison to hitch from other locations translates to greater fecundity. Accordingly, females in Clear Lake average 36,000 eggs (Geary and Moyle 1980) compared to an average of 26,000 eggs for hitch in Beardsley Reservoir (Nicola 1974) although the Clear Lake subspecies was not as yet identified at that time.

In the Clear Lake Basin, spawning occurs in low-gradient tributary streams and the spawning migrations resemble salmon runs on a miniature scale. The spawning migrations usually occur in response to heavy spring rains, from mid-February through May and occasionally into June (Murphy 1948b; Kimsey 1960; Swift 1963; CCCLH 2012 (unpublished data)). Clear Lake hitch spawn at water temperatures of 14-18°C in the lower reaches of tributaries. Egg deposition occurs along the margins of streams in very shallow riffles over clean, fine-to-medium sized gravel (Murphy 1948b, Kimsey 1960). During wet years, Clear Lake hitch spawning migrations may also opportunistically move into the upper reaches of various small tributaries, drainage ditches, and even flooded meadows. Hitch have also been observed spawning along the shores of Clear Lake, over clean gravel in water 1-10 cm deep where wave action keeps the gravel clean of silt (Kimsey 1960). Eggs are non-adhesive and sink to the bottom after fertilization, where they become lodged among the interstices in the gravel.

The embryos hatch after approximately seven days, and the larvae become free-swimming after another seven days (Swift 1965). Larvae must then move downstream to the lake before stream flows become ephemeral (Moyle 2002).

In the lake, larvae remain inshore and are thought to depend upon stands of tules (*Schoenoplectus acutus*) for cover until they assume a pelagic lifestyle. Juveniles are found in littoral shallow-water habitats and move into the deeper offshore areas after approximately 80 days, when they are between 40-50 mm SL (Geary 1978). Adult Clear Lake hitch are usually found in the limnetic zone (i.e., well-lit, surface waters away from shore) of Clear Lake. Adults are most vulnerable to predation during their spawning migration, when preyed upon by mergansers, herons, bald eagles, and other birds and by river otter, raccoons, and skunks (Bairrington 1999). Clear Lake hitch have been recovered from the stomachs of black bass caught in the lake (Bairrington 1999).

This subspecies of hitch is confined to the Clear Lake Basin, Lake County, California, and to associated lakes and ponds within the Clear Lake Basin such as Thurston Lake and Lampson Pond. As an indication of historic abundance and ubiquity of spawning locations, Lindquist (1943, page 200) noted, “Tens of thousands of split-tail and hitch have been observed moving in a solid mass up a creek only 4 feet wide.” Compared to past abundances, it appears that Clear Lake hitch has substantially diminished populations. The entire Clear Lake hitch population is confined to Clear Lake and its tributaries, and the populations previously identified in the Blue Lakes have apparently been extirpated (Macedo 1994).

The threats to Clear Lake hitch are multiple, but most evident threats are (1) loss of spawning habitat through changes in land and water use along the lake’s tributaries, (2) loss of nursery areas from alterations of the lakeshore, and (3) predation and competition from alien fishes (Murphy 1948b, 1951; Moyle 2002). Suchanek (2002) documents the loss of spawning habitat from multiple factors. Dams on tributary streams have an impact on hitch by blocking migratory routes and decreasing stream flows necessary for spawning. The Clear Lake Basin is the site of intensive agriculture, specifically vineyards and orchards, which not only draws down the water table but also sends effluent, including fertilizers, sediment, and pesticides into the lake. Access to adequate spawning habitat is also impaired by removal of water for agriculture and recreational use. Heavy grazing of Clear Lake watersheds has occurred since the 1870s and has contributed to sedimentation and nutrient loading of the lake (Suchanek et al. 2002). Historical development in the Clear Lake watershed has resulted in removed wetlands, increased sediment and nutrient loading, added septic tank effluent to the lake, increased applications of pesticides, and increased water usage. Mining wastes have also contaminated the lake with mercury and arsenic (Suchanek et al. 2002). In addition, climate change likely will further decrease water availability in tributaries during spring spawning migrations, due to climatic shifts towards greater aridity, timing of rainfall, and more extreme variability in rainfall (Suchanek et al., 2002).

EVALUATION OF THE PETITION

The discussion below presents the Department's topic area-specific evaluation of the Petition on its face and in relation to other relevant information in the Department's possession. (See generally Cal. Code Regs., tit. 14, § 670.1, subd. (d).)

Population Trend: Executive summary on page 2, and on pages 21 to 22 in Section I. Natural History and Status of Clear Lake hitch; B. Changes in Distribution and Abundance; 3. Population Trends in the Petition.

The Petition includes a discussion of Clear Lake hitch population trend on pages 21-22. The Petition primarily relies on two sets of data. First, it references unpublished information from the Lake County Vector Control District beach seine effort from 1988-2004.[1] However, this in and of itself is neither an analysis of population abundance nor trend, as these data do not describe any catch per unit effort or demonstrate a population estimate over time. Second, the Petition cites Chi Council for the Clear Lake hitch (CCCLH) spawning survey results (CCCLH 2012). The CCCLH survey data are actually qualitative, opportunistic information about the size and location of spawning runs in Kelsey and Adobe creeks and does not support analysis or interpretations about population trend. Thus, the Petition does not provide any direct scientific evidence of Clear Lake hitch population trends.

However, the Department has also considered other relevant information regarding population status and trend in its possession. There are historical accounts in various publications that indicate a current decline in population levels of native minnows in general, as well as hitch specifically. A qualitative account from Livingston Stone in 1873 states that "In the spring, when they run up Kelsey Creek, Cold Creek and other tributaries, to spawn, they swarm in these streams by millions, forming an almost solid mass…" (Stone 1873). The Department recognizes no species is identified in this account, only "minnows" in general. Later in the same document, when discussing hitch specifically, Stone states "They run up the streams in the spring to spawn in countless numbers. It is not unusual to see one or two acres of ground covered with hitch, which the Indians have dried for food." Another account from Colman in 1925 states that the hitch were "The most abundant fish in all these lakes. They run up all the creeks, entering from the lake in March… They are so abundant that one can hardly step without stepping on several" (Colman 1930). The Department has additional historical records that indicate a decline in population levels since the early 1960s (Bairrington, 1999).

There is very limited scientific information available in the Petition, in the literature, and in Department documents specific to Clear Lake hitch population trend. However, it is reasonable to infer from the loss of historical spawning habitat (Macedo 1994; Bairrington 1999), qualitative historical observations by Stone (1873) and Colman (1925) as well as recent qualitative observations by the CCCLH (2012), that the population of Clear Lake hitch has declined from historic numbers.

[1] Data presented in the Petition in graph form on Page 22. No citation or reference was provided for these data.

Range: On pages 8 to 10 in Section I. Natural History and Status of Clear Lake hitch; A. Natural History; 3. Range and Distribution in the Petition.

The Petition includes a discussion of the geographic range of Clear Lake hitch on pages 8-10. The Petition relies on annual observational surveys of spawning hitch conducted since 2005 by the CCCLH and Robinson Rancheria Environmental Council (RREC). This information suggests that spawning hitch in biologically significant numbers have been documented regularly in only two of the 14 watersheds that are tributary to Clear Lake. As depicted in Figure 1, the Petition accurately depicts the range of Clear Lake hitch. Bairrington (1999) confirms that Clear Lake hitch are confined to the Clear Lake Basin in Lake County .

There is enough scientific information specific to Clear Lake hitch regarding the historical and current range to support the Petition's contention that this subspecies of hitch may be confined to the Clear Lake Basin (Figure 1).

Distribution: On pages 13 to 16 in Section I. Natural History and Status of Clear Lake hitch; B. Changes in Distribution and Abundance; 1 in the Petition.

The Petition includes a discussion of distribution of Clear Lake hitch on pages 13-16, citing the CCCLH observational information, as well as historical, qualitative accounts described above in which hitch were observed in numerous tributaries to Clear Lake. The Department's current knowledge of the distribution and range of the Clear Lake hitch, (Figure 1) is based upon recorded observational information. The Petition's distribution map and the Department's map are nearly identical, because both maps are based on the same information.

There is limited scientific information specific to Clear Lake hitch distribution within the Basin. However, because spawning and lake habitats utilized by the hitch have been greatly degraded over time, it can be inferred that their distribution has been reduced (Suchanek 2002).

Abundance: On pages 16 to 21 in Section I. Natural History and Status of Clear Lake hitch; B. Changes in Distribution and Abundance; 2 in the Petition.

The Petition includes a discussion of Clear Lake hitch historical and current abundance on pages 16-21. The information presented is based upon results primarily from historical observations, which indicated very high numbers of hitch in Clear Lake and all tributaries. The recent CCCLH surveys conducted over the past decade do not show the historical high numbers and in some tributaries (e.g. Eickoff Creek, Forbes Creek, Henderson Creek, and Herndon Creek) hitch have not been documented in the last several years. Recently, the Department has conducted limited fish surveys that likely indicate fewer hitch in Clear Lake habitats than noted in historical accounts. Specifically, percent composition of hitch relative to the total catch from small beach seine hauls collected from Clear Lake was 4.4 and 6.8 in 1961 and 1962, respectively. The percent composition of hitch relative to total catch declined to 0.1 in 1989 (Department unpublished data). In 1992, Department field surveys of three primary hitch spawning streams (Seigler Canyon, Kelsey, and Adobe creeks) found "good" runs

of hitch. The spawning run in Seigler Canyon Creek apparently has since ceased (Chi Council, unpublished data).

Scientific information on abundance specific to Clear Lake hitch is very limited. Existing abundance information is based on opportunistic observations taken during non-hitch specific studies. No systematic abundance evaluation has been undertaken. However, the information available supports the possibility that abundance has declined from historical numbers.

Life History: On pages 11 to 13 in Section I. Natural History and Status of Clear Lake hitch; A. Natural History; 5. Life History in the Petition.

The Petition includes a discussion of Clear Lake hitch life history on pages 11-13. The discussion references and relies upon Moyle (2002), which presents research conducted in the 1940s, 1960s and 1970s on hitch in Clear Lake. In general, the Petition information accurately describes life history details for the Clear Lake hitch; however the information on feeding habits and food selectivity is somewhat dated. A recent study (G. Giusti personal communication) examined feeding by Clear Lake hitch and suggests that food selectivity may change due to large "boom" periods of inland silversides. More study of this issue is needed.

There is limited scientific information available specific to Clear Lake hitch life history. However, most of the existing information is presented in the Petition.

Kind of Habitat Necessary for Survival: On pages 10 to 11 in Section I. Natural History and Status of Clear Lake hitch; A. Natural History; 4. Habitat Requirements in the Petition.

The Petition includes a discussion of habitat requirements on pages 10-11. The Petition accurately describes the types of habitat for various life stages and reproduction for species survival. Information available indicates that several specific habitat types (tributaries for spawning, shallow tules for growth and rearing, and littoral zone for adults) along with specific environmental attributes (e.g., cover, temperatures, currents, and water quality) may have been reduced from historical range (Suchanek 2002).

Factors Affecting Ability of Population to Survive and Reproduce: On pages 23 to 33 and pages 38 to 47 in Section II. Factors Affecting Ability to Survive and Reproduce; A. Present of Threatened Destruction, Modification, or Curtailment of its Habitat or Range; B. Overutilization for commercial, recreational, Scientific, or Educational Purposes; C. Disease or Predation; and E. Other Natural of Anthropogenic Factors in the Petition.

On pages 23-33 and pages 38-47, the Petition discusses factors affecting the ability of the population to survive and reproduce. These factors include the following: 1) loss of spawning and nursery habitat areas; 2) hydrologic changes; 3) dams and migration barriers; 4) mining and grazing; 5) residential development; 6) introduced fishes; 7) pollutants and pesticides; 8) climate change; and 9) loss of genetic integrity. The Petition's discussion of these factors is consistent with information known to the

Department regarding potential threats to the species, which is summarized in the Background section, above.

The Petition also describes a potential threat to Clear Lake fish due to sport angling, on pages 31-32. The Petition states that cyprinid fish such as hitch can be taken pursuant to Fish and Game Code Section 8437 and associated regulations. Although actual angler demand has been low, there may be some minor use of hitch for bait and for human consumption (Wang 1986). The Petition also states that hitch may be taken recreationally for use as bait or for other reasons. Macedo (1991) suggests that sport angling does not notably impact Clear Lake hitch populations.

The Petition discusses the effects of the dramatic growth in the human population in California over the last century. The associated residential, commercial, agricultural, and recreational developments has reduced fish habitats in the Clear Lake Basin including those for hitch.

Degree and Immediacy of Threat: On pages 23 to 33 and pages 38 to 47 in Section II. Factors Affecting Ability to Survive and Reproduce; A. Present of Threatened Destruction, Modification, or Curtailment of its Habitat or Range; B. Overutilization for commercial, recreational, Scientific, or Educational Purposes; C. Disease or Predation; and E. Other Natural of Anthropogenic Factors in the Petition.

The Petition presents a very limited discussion of the degree and immediacy of threat on pages 23-33 and pages 38-47. The discussion provides some qualitative information about the immediacy of threats to the Clear Lake hitch population.

Although the Petition summarizes potential threats to the Clear Lake hitch, the data presented in the Petition and in the published literature is limited and are insufficient to assess in a scientifically precise way the degree and immediacy of threat.

Impact of Existing Management Efforts: On pages 33 to 38 in Section II. Factors Affecting Ability to Survive and Reproduce; D. Inadequacy of Existing Regulatory Mechanisms in the Petition.

The Petition includes a discussion of management efforts on pages 33-38. The discussion references and relies on a list of laws, regulations, and plans with a short description of each including federal, State, and local regulatory mechanisms and describes their inadequacies for the protection of Clear Lake hitch. The Petition states that projects impacting hitch and its habitat have been approved notwithstanding review under the California Environmental Quality Act and the Department's Streambed Alteration Agreement authority (Fish and Game Code Section 1602). The Petition does not identify specific projects or their impacts to hitch.

There are no provisions in the Fish and Game Code that specifically prohibit take of Clear Lake hitch or protect its habitat. The Clear Lake hitch is currently listed as a California Fish Species of Special Concern (FSSC). The Department is currently reviewing and revising the FSSC list. With the completion of this publication, the most current knowledge of the subspecies will be available. Clear Lake hitch may be taken by various angling or capture methods (CDFG 2012). However, the Department is

currently reviewing the freshwater sport fishing regulations and revisions may be developed that address commercial and recreational take.

The Petition accurately notes that Lake County adopted a Creek Management Plan in 1981 and an Aggregate Resource Management Plan as an element of its General Plan in 1992 to control gravel-mining operations in stream channels. The Lake County General Plan was updated in 2008 (Matrix Design Group and Mintier & Associates 2008). The plan contains goals and policies to protect water quality and biological resources. In addition to those activities presented in the Petition, the United States Fish and Wildlife Service has awarded a grant to the RREC's Hitch Recovery Program (RREC, 2011). This grant will fund efforts to develop a Clear Lake hitch captive breeding program through a small-scale fish hatchery. The project will also work with Big Valley Rancheria and Upper Lake Rancheria to monitor and tag Clear Lake hitch during spawning and migration. These actions, as well as others identified in the RREC Draft Adaptive Management Plan, may enhance hitch populations.

In conclusion, as identified above and in the Petition there are limited existing regulatory and management efforts in the Clear Lake basin to sustain fisheries. There are no scientific certainties regarding the effects of such management activities benefitting Clear Lake hitch. In-depth scientific study of Clear Lake hitch in response to: threats, resource management actions, land use changes, recreational activities, and human behavior would be necessary before drawing conclusions.

Suggestions for Future Management: On pages 47 to 49 in Section III. Recommended Management and Recovery Actions in the Petition.

The Petition includes a list of twelve recommended management actions for Clear Lake hitch on pages 47-49. These recommended management actions are presented without narrative or scientific substantiation as to why these specific recommended actions are necessary to sustain or enhance the current populations.

Many of the Petition's recommended actions may be or already are underway. Some of these actions are currently under consideration by the Department: e.g., modification or removal of barriers to migration, support for existing management plans, monitoring, and identification of research needs. The Department has assigned a biologist to work in the Clear Lake Basin to aid in biological resource management and planning. The Department will be working with all interested parties on implementation of resource management activities that enhance fish populations.

In conclusion, no specific evaluation regarding the sufficiency of the future management recommendations for the Clear Lake hitch presently exists. Existing related resource information is likely relevant as it may inform the development of useful strategies to protect, conserve, and enhance the Clear Lake hitch population.

Availability and Sources of Information: On pages 52 to 58 Bibliography of Literature Cited in the Petition.

The Petition includes a Bibliography of Literature Cited on pages 52-58, much of which is published literature. The sources were not included with the Petition when submitted

to the Commission, but the Petitioner provided the Department electronic copies of most of the references at the end of October 2012. Two sources of information cited in the Petition were neither listed in the references nor provided electronically. As discussed elsewhere in this evaluation report, very little information on the Clear Lake hitch exists in the literature. The Petition provided no specific data, and the Department presently has little data specifically addressing concerns articulated in the Petition. The Department's Reference Section, below, reflects the Department's current state of documented knowledge of Clear Lake hitch.

Distribution Map: On page 15 in the Petition.

The Petition includes a map of the Clear Lake area showing the aquatic habitats from Suchanek (2002) and an unreferenced map showing former and current extent of hitch spawning (page 15). The Department has prepared a draft map during the rewrite of its FSSC Publication (in progress) which shows the range and distribution of Clear Lake hitch (Figure 1). Although the map in the Petition relies on the same information sources, the Department's map presented here is the most recent version and therefore the most accurate. Nonetheless, the Department believes the Petition's summaries and depiction of Clear Lake hitch habitats and extent adequately represent known information for the species.

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Figure 1. Draft Distribution and Range for Clear Lake Hitch (from 2012 Draft Species of Special Concern account)