TES NESTING

TY, CALIFORNIA

re of white-tailed kites (Elanus y or any farther north than Hum-

ailed kites was observed hunting te County. On July 16, 1969 the 1 it was learned that the kites had 7 a collector for the purpose of ie east side of Lake Earl, approxih of Jordan Creek, in a wood lot dotsuga Menziesii), redwood (Scypress (Cupressus macrocarpa). with pasture which is utilized by

ertment Fish and Game, Eureka, on April 1970.

-A NEW LOCALITY AND ISTRIBUTION IN WEST ;ALIFORNIA

tions of the sagebrush lizard (Sectois at or above 3,200 ft and are dispulations occur at the following loof occurrence indicated: Mount Dity; Santa Rita Peak, 4,500 ft, San nito Mountain, 4,500 ft San Benito . Summit Chuai, 3,592 ft Santa Cruz to occur on Mount Hamilton, Santa

sjunct nature of the sagebrush lizard fka (1968) did not collect specimens habitat in the Pinnacles National Benito and Monterey counties.

es south of Carmel, two adult males ected 4 mile southwest of Twin Peaks ata Lucia Range, Monterey County. r miles inland from the coastline at imens are as follows: sv = 55.2, 50.5n, dorsal scale count, i.e., number of gin of the interparietal and a line conthe thighs $= \overline{62}$, 59.

Both specimens were collected on the shoulder of a dirt road which traversed the ridge top in chaparral habitat. Spanish bayonet, Yucca, and clumps of oak and Spanish broom, Spartium, were scattered among chamise, Adenostema. The substrate was decomposed granite. To my knowledge these specimens are the first from Monterey County.

The nearest population is 50 miles east in the Diablo Range at Santa Rita Peak, San Benito County. Since the extensive lowlands of the Salinas River drainage stretch between the Diablo and Santa Lucia ranges, it is probable that these populations are disjunct.

On the basis of this new locality, it is suspected that the sagebrush lizard occurs, probably in disjunct populations at high elevations, throughout the Santa Lucia Range. If it does, the species exists in mountain areas completely encircling the Sacramento and San Joaquin valleys. A search should be made throughout the Santa Lucias.

I want to thank Dr. R. C. Stebbins for advice in the preparation of this paper and James F. Lynch who introduced me to this lizard. Thomas G. Balgooyen, Museum of Vertebrate Zoology, University of California at Berkeley, California 94720. Accepted March 1970.

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INTRODUCTION OF BLUE CATFISH INTO CALIFORNIA

On October 23, 1969, 1,990 blue eatfish, Ictalurus furcatus (LeSueur), were flown from Stuttgart, Arkansas, to Gillespie Airport for introduction into Lake Jennings, San Diego County. Dr. Fred P. Meyers, Bureau of Sport Fisheries and Wildlife, Fish Farming Experimental Station, Stuttgart, Arkansas, coordinated procurement of the fish. Only one catfish was lost during shipment.

Blue catfish are known to feed on the freshwater Asiatic clam, Corbicula fluminea. C. fluminea is abundant and a nuisance in many southern California waters but is virtually unutilized by present game fish populations. Although the blue catfish probably will not afford any biological control over the clams, it is likely they will convert appreciable quantities of this forage animal to fish flesh for angler use. The blue catfish also attains the largest size of any of the American catfishes, and would enhance our fisheries by providing another trophy sized fish. Consequently, following a recommendation by Alex Calhoun, Chief, Inland Fisheries Branch, we introduced the blue catfish on an experimental basis.

One thousand seven hundred and fifty-eight of the catfish were marked with a right pelvic clip and released into Lake Jennings on October 23, 1969. The remaining blue catfish were transported by hatchery planting truck to the Department's Chino Fish and Wildlife Base to be used for future broodstock. Average length of the imported fish was 6.46 inches TL with a range of 3.39 to 8.46 inches. Their average weight was 1.08 oz. Prior to liberation into Lake Jennings, 211 of the catfish were held in a live car for a period of 21 hours. No mortality occurred.

On November 18, 1969, 2,014 channel catfish, Ictalurus punctatus, averaging 6.65 inches were marked with a left pelvic clip and released into Lake Jennings for comparison of growth and harvest rates with the blue catfish.

the blue catfish.

—William M. Richardson, James A. St. Amant, Lawrence J. Bottroff, and Wayne L. Parker, Inland Fisheries Branch, Region 5, California Department of Fish and Game. Accepted April 1970.

OCCURRENCE ON THE HIGH SEAS OF A STEELHEAD TROUT IN ITS NINTH YEAR

A steelhead trout (Salmo gairdnerii) of unusual age was captured in the eastern North Pacific Ocean on September 11, 1969, by the RV George B. Kelez, Bureau of Commercial Fisheries. It was taken in a surface gillnet at lat 53°00′ N, long 160°00′ W (about 100 miles south of the Shumigan Islands, Alaska) during a survey to determine the relative abundance and distribution of Pacific salmon (Oncorhynchus spp.). The fish, a female, was 33.7 inches (857mm) long, was emaciated and was recovering from its last spawning migration (one of four in as many years). About 12 eggs that had been retained in the ovaries after the last spawning were being resorbed, and the next generation of immature eggs was present.

Age determination was made from microprojections of scale impressions on a plastic card (Koo, 1962; Mosher, 1950). The scales showed a freshwater age of 3 years and an ocean age of 2 years before the first of four successive spawnings, plus additional summer growth in 1969 (3.1GGGG+). Thus the fish had completed 8 years and was in its

ninth year (Figure 1).

Plastic impressions of scales were sent to several agencies for verification of the age of this fish. All experts agreed on the life history of the specimen (i.e., 3 years in fresh water, 2 years in the ocean, four successive annual spawning migrations, and a period of post-spawning recovery in the summer of 1969). Agreement was not complete, however, on the total age of the fish (8 or 9 years) because of a difference in the interpretation of steelhead age designations by the Koo (1962) formula and by F. H. Sumner (pers. comm., Dec. 18, 1969). According to Mosher (pers. comm.) the use of Sumner's interpretation increases total age of the fish by 1 year—the year that is added between the first year of ocean growth and the initial spawning check.

Most of the literature reviewed showed 7 years to be the maximum age attained by steelhead trout (Snyder, 1925, 1933; Neave, 1940; Pautzke and Meigs, 1941; Meigs and Pautzke, 1941; Shapovalov and Taft, 1954; Maher and Larkin, 1955; Bali, 1959; Withler, 1966: Bulkley, 1967; Narver, 1969). Sumner (1948), however, reported an 8- and a 9-year-old steelhead trout.

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