## OVERVIEW OF THE KLAMATH

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KLAMATH FALLS FISH AND WILDLIFE OFFICE

U.S. FISH AND WILDLIFE SERVICE











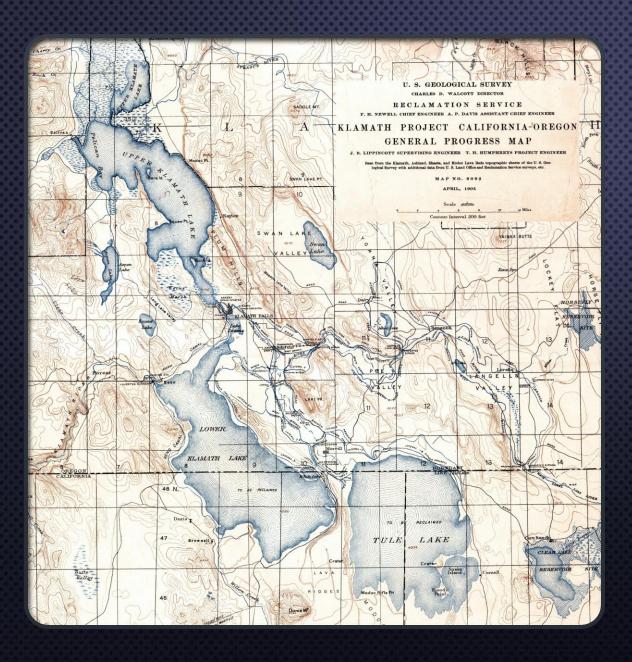


#### KLAMATH SUCKERS

Koptu - Shortnose sucker (Chasmistes brevirostris)

C'waam - Lost River sucker (Deltistes luxatus)

Klamath Largescale sucker (Catostomus snyderi)



## HISTORICALLY KLAMATH SUCKERS HAD ROBUST POPULATIONS IN NUMEROUS LAKES AND RIVERS



#### SPAWNING

- MARCH MAY
- IN TRIBUTARIES AND SHORELINE AREAS IN UKL
- IN GROUPS OVER GRAVEL IN SHALLOW WATER
- A SINGLE FEMALE CAN LAY FROM 46,000 200,000 EGGS EVERY YEAR

#### LARVAE AND JUVENILES



- LARVAE SWIM OUT AFTER ABOUT 3 WEEKS
- MOVE INTO NEAR-SHORE WETLAND AREAS WITHIN THE LAKE
- JUVENILES TAKE 3 TO 9 YEARS TO MATURE

### SUCKERS WERE IMPORTANT TO KLAMATH AND MODOC PEOPLES FOR MILLENIA

Swallow-tailed Kite. Golden Eagle. Gray Gyrfalcon 874B. Black Gyrfalcon. 877A. American Hawk Owl. Grav Kingbird. 466A, Traul's Flycatcher. American Raven. 511B. Bronzed Grackle. Evening Grosbeak. Pine Grosbeak. Henslow's Sparrow. Cardinal. Blue Grosbeak Painted Bunting. Bohemian Waxwing. e-fronted Goose. Golden-winged Warbler. Nashville Waroler, Orange-crowned Warbler, Cape May Warbler, Mourning Warbler, Short-billed Marsh Wren. a Night Heron. Tufted Titmouse. Carolina Chickadee. Varied Thrush. Wheatear.

#### LOST RIVER SUCKER.

ped Petrel.

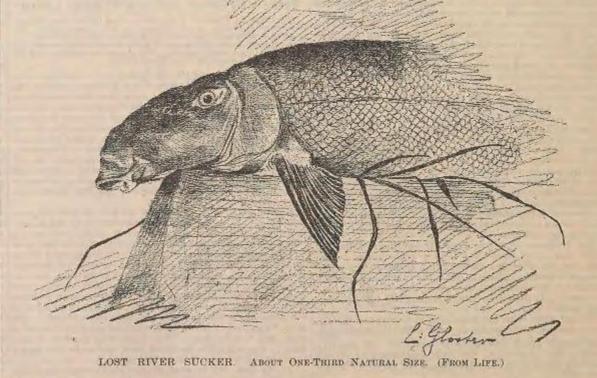
Eus pean)

ed Duck.

Ceal.

local term, applied to a good-sized fish, cribed by Prof. E. D. Cope in the American ol. XIII., 1879, p. 784, under the name of watus. He tersely describes it as follows: form, head long, flat above and with a large uth term nal, the spines of the premaxiljecting, so as to form a hump on the top of ower lip very thin, dermal fold extending d the chin. Scales 12-80-9. Radii: D. 11;

ded above with black punctuations, below I shades in some specimens, fins uncolored. ngth of nearly 3ft. It ascends the streams



in the spring, and is taken and dried in which is evidently the same body of water universally | attached. This rod was bent in the shape of a hook with

Tswam. Its habitat is given as Klamath is located about forty miles from Fort Klamath in a into the stream with his pole, as far as practicable, the south-southeasterly direction, and is not quite so large as curve of his rod dragging on the bottom, the point uphere is on record regarding this species, and either of the Klamath lakes. As near as I have been able ward, and when coming in contact with a fish, a sharp been fully described nor figured, I make to ascertain, the so called Lost River sucker is indigenous | jerk would be given, which usually impaied the poor

s by the Klamath and Modoc Indians. The known in that region under the former name. This lake the point well sharpened. The operator would reach out

me that it would be well worth the trouble for the U. S. | shanty. Fish Commission, which has already done so much valuable and successful work in the line of propagation and distribution of food fishes, to investigate this species to a certain extent. Inasmuch as one of the most complete stations, the one at Baird, Shasta county, Cal., is now within comparatively easy reach, it would not entail such a great amount of labor to do it. I believe the Lost River sucker to be a hardy one, that would stand transportation and transplanting very readily.

CHAS. E. BENDIRE.

TO PENNSYLVANIA ORNITHOLOGISTS, -West Chester, Pa., June 6.-Having been informed that you are interested in the study of ornithology, I take the liberty of addressing you and stating that by a recent act of our Good-natured, he State Legislature I have been directed to prepare a second day, taking the and revised edition of the "Birds of Pennsylvania," for gratuitous distribution. I am exceedingly anxious to correspond with competent field naturalists in every Frank. This are county of our Commonwealth. If it is not imposing too much on your time and good nature I will be pleased to correspond with you relative to the bird-life occurring in your section of the State. Inclosed please find a printed list of birds recorded as occurring in Pennsylvania. I will be greatly obliged if you will kindly mark the list as indicated and return it to me at your earliest convenience. Should you decide to furnish me with information relative to the feathered tribes, which is worthy of special mention, full credit will be given in the forthcoming edition of the "Birds of Pennsylvania." If you know of any naturalists in this State with whom I can correspond in relation to birds and mammals, please give me their names and post office address .- B. H. WARREN, State Ornithologist. [A provisional list of the birds of Pennsylvania accompanies this open letter.]

FEMALE NARWHAL WITH TUSKS.—The male narwhal has only one developed tusk, and that is on the left side. hastily away, we The female has two tusks, but they are usually not func- down the little tional. About the month of July, 1887, Captain James strange and und Fairweather harpooned a female narwhal with two tusks | swept onward of in Prince Regent's Inlet. Specimens of narwhal with out on the bay

When the duck

some days in nur on that little dou it might be used onward course of had become firm to give it a trial Like all old stories of hunting ably connected v

water. It requ word now and th him. We all kn sessed all those v whether the days a very tender po fellowship than scarcely reached as any of his fell

It was late l looked at the break. It seeme blankets someth roused by some t

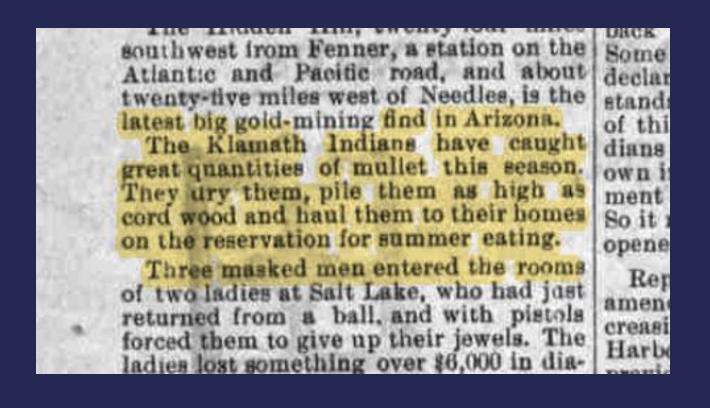
"Come, Frank drowsily.

"All right, but kets," and the over the foot of

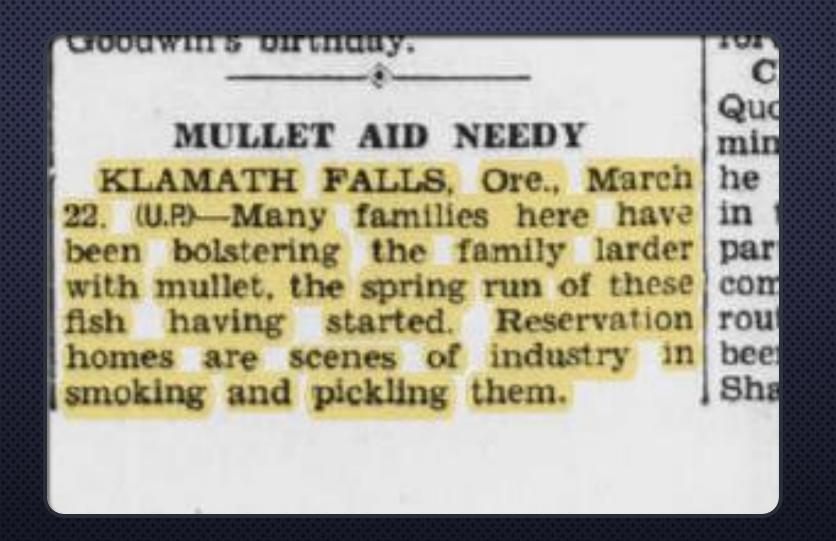
A couple of cu in both of us. ' we sallied out, I A small arm o where Frank mo

#### THE SPECIES WERE DESCRIBED TO SCIENCE IN 1879

SUCKERS
CONTINUED
TO BE
IMPORTANT TO
THE KLAMATH
TRIBES IN
1900'S



1892



### SUCKERS ALSO IMPORTANT TO EARLY SETTLERS

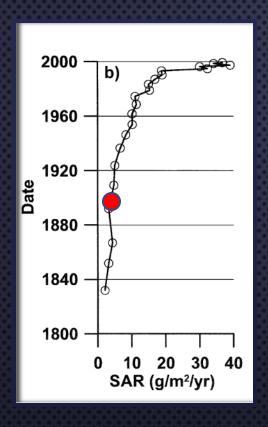
### OREGON SUCKER IS DOOMED NOW

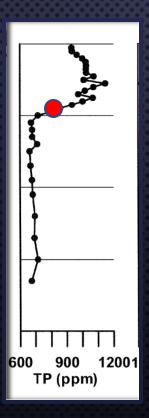
The diversion dam which is to be constructed across Lost river at the gap will mean the passing of the famous Lost river sucker. This sucker, or mullet, which is its right name, has been famous along Lost river ever since the white man knew the country writes a Klamath correspondent to the Portland Oregonian.

Each spring the suckers have been wont to run up the river to their spawning grounds about Bonanzk, and during this time the people living along the banks have caught them by the thousands.

When the dam is completed and the waters of the Tule' lake dry up these fish will have no place in which to remain during most of the year, and as the river is to be diverted into the Klamath river what few of them happen to be above this dam when it is finished and the water turned out of the old channel will lose themselves in the waters of the Klamath and lakes of this country.

THE IMPENDING
DEMISE OF
SUCKER
POPULATIONS
WAS PREDICTED
AS EARLY AS
1911





# SEDIMENTATION AND PHOSPHORUS LOADING BEGAN TO INCREASE AROUND THE TURN OF THE LAST CENTURY

#### BY 1970'S

- SUCKERS IN UKL PART OF A RECREATIONAL FISHERY
- DECLINING TRENDS IN UKL
- POPULATIONS IN LOWER KLAMATH LAKE AND TULE LAKE HAVE BEEN DECIMATED

#### BY 1970'S

SUCKERS IN UKL PART OF A RECREATIONAL FISHERY.

DECLINING TRENDS IN UKL

• POPULATIONS IN LOWER KLAMATH LAKE AND TULE LAKE HAVE BEEN DECIMATED

#### BY 1970'S

- SUCKERS IN UKL PART OF A RECREATIONAL FISHERY
- Declining trends in UKL
- POPULATIONS IN LOWER KLAMATH LAKE AND TULE LAKE HAVE BEEN DECIMATED DUE TO HABITAT LOSS

## NON-NATIVE SPECIES ALSO INTRODUCED INTO HABITATS





## LOST RIVER SUCKER AND SHORTNOSE SUCKER WERE LISTED IN 1988 GIVEN THE DECLINES AND CONTINUING THREATS TO THE SPECIES

- ECOSYSTEM DEGRADATION & HABITAT LOSS
  - LAKE
  - WETLAND
  - SPAWNING
- Water Quality
- WATER MANAGEMENT
- INTRODUCED SPECIES
- HYBRIDIZATION

- ECOSYSTEM DEGRADATION & HABITAT LOSS
  - LAKE
  - WETLAND
  - SPAWNING
- WATER QUALITY
- WATER MANAGEMENT.
- INTRODUCED SPECIES
- HYBRIDIZATION

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#### U.S. FISH AND WILDLIFE SERVICE ONGOING SUCKER SCIENCE

- Captive rearing Klamath Falls National Fish Hatchery & Klamath Tribal Hatchery
- HABITAT RESTORATION
- MONITORING
- INTERAGENCY COOPERATION
- TRIBAL ENGAGEMENT

