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Long Time Past: Baird Station and the McCloud Wintu

ABSTRACT

The U.S. Fish Commission's Baird Station, established on the McCloud River at the northern end of the Sacramento Valley in California, was the first salmon hatchery on the North American Pacific Coast. During its early period of operation (1872-1883) under the supervision of fish culturist Livingston Stone, Baird Station produced a reliable and seemingly limitless supply of chinook salmon (*Oncorhynchus tshawytscha*) eggs for the stocking of eastern U.S. streams and for shipments to overseas countries. The local native people—the McCloud Wintu—played a vital role in the station's operations. Their cultural and economic entwinement with the salmon resource and contribution to the station's mission were recorded in Stone's official reports. That near-forgotten story is retold here for new generations of fisheries workers—of the fish that once were, and of a people who still are.

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In August 1872, Livingston Stone, newly appointed fish culturist for the U.S. Fish Commission, was dispatched to California on a mission to procure Pacific salmon eggs for planting into eastern U.S. rivers where the native Atlantic salmon stocks had been depleted (Stone 1883a, 1897; Hedgpeth 1941). Upon his arrival in San Francisco, Stone spent a period of fruitless inquiry in learning—to his "very great astonishment"—that the spawning grounds of the Sacramento River chinook salmon (*Oncorhynchus tshawytscha*) were generally not known, even to the state fish commissioners (Stone 1883a). Eventually, however, Stone was directed to the McCloud River in the upper Sacramento Valley by W. W. Montague, chief engineer of the Central Pacific Railroad, who had seen "Indians spearing salmon" during the fall spawning time (Stone 1883a:218; 1897:207). Journeying north with two assistants, Stone found the salmon he had sought and there also he met the McCloud Wintu people. In his words:

> ... we came upon several camps of Indians with hundreds of freshly caught salmon drying on the bushes. Salmon could also be seen in the river in such numbers that we counted sixty in one spot as we stood at the water's edge. It was evident that this was the place to get the breeding fish.... (Stone 1874:168, 1897:207).

Thus, Stone established the U.S. Fish Commission's salmon egg-collecting station on the McCloud River, about two miles above the juncture with the Pit River, which in later years was called Baird Station (Stone 1897). It was set in a landscape still unsullied by civilization's excesses:

> On the darkest nights the scene on the river bank was exceedingly wild and picturesque. Behind us was the tall, dark shadow of Persephone Mountain, and before us at our feet ran the gleaming, rapid current of the McCloud, while the camp-fire threw an unsteady light upon the forest, mountain, and river, suddenly cut off by the dense darkness beyond.... It was quite impressive, in the midst of the surroundings, to reflect that we were beyond the white man's boundary, in the home of the Indians, where the bear, the panther, the deer, and the Indian had lived for centuries undisturbed (Stone 1874:172, 1897:208).

Also, notably:

> The miner's pick and shovel have upturned the banks of other rivers, or the farms of white men have stretched along their waters, but, for some reason or other, the civilized races have very singularly left the McCloud River to its aboriginal inhabitants. The consequence is, that the McCloud River presents an instance of what is becoming extremely rare,... namely, a region which is just as it was before the white man found it, and a race of aborigines, whose simple habits have not been corrupted by the aggressive influence of communication with the whites (Stone 1874:177).

Historical synopses of Baird Station have been presented in earlier works (Hedgpeth 1941; Lichatowich 1999; Yoshiyama 1999) and details on the egg-collecting and hatchery activities were provided by Stone and others in U.S. Fish Commission reports (e.g., Stone 1874, 1876a; USFC 1892). The purpose of the present paper is to highlight one aspect of the station's operations as related by Stone's accounts—viz., the contribution of the local native people, the McCloud Wintu. Although the relationship of the McCloud Wintu and Baird Station was briefly described previously (Yoshiyama 1999), a more detailed recounting is deserved because of its historical richness and potential future ramifications. That relationship was an uncommon, if not unique, early example of how people of different cultural backgrounds and perceptions came together to conduct a highly successful fisheries

venture, made all the more remarkable by the initial mistrust of the parties. It is a story of beauty and poignancy—and, in a way, one that has not yet ended.

Stone's Reports: 1872-1884

The following sections present a narrative and passages from Stone's reports related to the early years of Baird Station and the interactions with the McCloud Wintu. During that period the Wintu were still numerous in the area and were able to substantially contribute to the success of the station's operations. Stone's reports were published in the serial volumes of the U.S. Commission of Fish and Fisheries ("U.S. Fish Commission"), including several historical résumés (Stone 1883a, 1885a, 1897), but they are largely inaccessible to present-day fisheries workers. Those reports reveal much historical information on Baird Station—the first salmon hatchery on the Pacific Coast and one of the earliest fisheries management efforts in California by non-native people—and they include invaluable ethnographic fragments on the McCloud Wintu. The nascent hatchery operations at Baird Station coincided with the opening of a new era in American fisheries management based upon extensive artificial propagation of native and non-native species and their translocations across great distances (Bowen 1970; Dill and Cordone 1997; Lichatowich 1999). In fact, Stone's arrival on the McCloud River was only shortly preceded by the earliest reported introductions of non-native fishes into California—American shad (*Alosa sapidissima*) and brook trout (*Salvelinus fontinalis*) in 1871 and possibly goldfish (*Carassius auratus*) in 1867 (Smith 1896; Shebley 1917; Dill and Cordone 1997).

This narrative is roughly divided into several parts that describe the establishment of Baird Station, the notable events during the station's first decade of operation, and the involvement of the McCloud Wintu. Although Stone's writings reflect the terms and perspectives of a bygone time, we have retained much of his own words for they best convey the nuances of what he saw and felt and because a paraphrasing would lose information possibly significant to more discerning

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The U.S. Fish Commission's Baird Station was established on the lower McCloud River in the northern Sacramento Valley of California, within the territory of the McCloud Wintu people. A group of McCloud Wintu is shown here next to racks of drying salmon with the buildings of Baird Station in the background (ca. 1882).

Background to early U.S. salmon culture, historical highlights at Baird Station, and later events

(based on U.S. Fish Commission reports [i.e., Stone and USFC references], Hedgpeth [1941], and Lichatowich [1999]; additional references on specific points are given below)

1866 New Hampshire Fish Commission sends agent to New Brunswick (Canada) to procure Atlantic salmon eggs—the first U.S. salmon-breeding effort. Livingston Stone retires from Unitarian ministry and begins career as fish culturist raising trout and Atlantic salmon in New Hampshire.

1868 Stone sent to Mirimichi River in New Brunswick to establish a hatchery in cooperation with Canadians; local opposition leads to abandonment of project.

1869 U.S. purchases Atlantic salmon eggs from Canada for "the preposterous sum of $40 in gold per 1,000, or nearly $45...in [U.S.] currency."

1870 Stone and four other fish culturists meet to organize the American Fish Culturists Association (AFCA), later to become the American Fisheries Society (Bowen 1970; Thompson 1970).

1871 First meeting of AFCA; the association petitions federal government to establish salmon hatcheries on Atlantic and Pacific coasts.

1872 Stone is appointed deputy commissioner of U.S. Fish Commission and sent to California to obtain Pacific salmon eggs; arrives with Myron Green and Willard T. Perrin (August 30) on the McCloud River to find spawning salmon and meets the McCloud Wintu. Operations (McCloud River Station) established 3 mi above juncture with Pit River. First shipment of 30,000 eggs sent in late-October to East Coast (New Jersey); 24,000 eggs lost in transit, but 6,000 eggs hatched and planted in "tributaries of the Atlantic." Cost of season's operation is $100 per 1,000 eggs shipped.

1873 Hatchery relocated to 2 mi above the Pit River juncture. First water wheel built to supply water to the hatchery, celebrated by raising American flag over camp. Local fisherman claims prior rights to the fishing ground and extorts "a considerable sum" from Stone. Shipment of 2 million salmon eggs in good condition to East Coast proves the feasibility of the hatchery.

1874 Weir built across the McCloud River for the first time to block the salmon run and aid egg-collection. Deep trays (Williamson troughs) successfully used for incubating the eggs. First consignment of 25,000 eggs sent to New Zealand. California Fish Commission pays $1,000 for 850,000 eggs for planting in the McCloud River. Due to successful operations the station is recognized as a "permanent station of the Fish Commission" (Stone 1897:212).

1875 50,000 eggs sent to New Zealand and Australia. A portion of collected eggs hatched and planted in McCloud River and other Sacramento River tributaries. President Grant designates (in December) the station and 280 acres as a government fishery reservation.

1876 Local fisherman's spurious land claim for the fishery reservation and illegal fishing jeopardizes Stone's operations; the dispute is referred to U.S. Attorney General. Stone's prediction of solar eclipse in March "a matter of great astonishment to the Indians" (Stone1878b:936). Eggs sent to eastern states in a railroad "private ice car" for the first time. Egg shipments to New Zealand (cost of 50 cents per thousand eggs) and Sandwich Islands (Hawaii).

1877 Small military unit sent to guard the salmon reservation and station from encroachment by settlers and illegal fishermen. Current-wheel for hatchery water supply set on flat-boats. Illegal fishing by Sacramento River cannery operators depletes the spawning run into the McCloud River and greatly reduces the egg-take (Stone 1879). Increased "foreign demand" for salmon eggs; shipments sent to European nations, Canada, Australia and New Zealand.

1878 January-February flooding damages the station. Baird Post Office established; the egg-collecting and hatchery thereafter known as Baird Station. Threat of hostilities from "northern Indians" against the station and McCloud Wintu. July solar eclipse—the "grizzly bear that eats the sun" (Stone 1880:746).

1880 Telephone—"teen klesch (talking spirit)"—installed at the station; "Indians were in great glee over it, . . . soon talking to each other over the wires" (Stone 1883b:599).

1881 February flood of epic proportions destroys the station; facilities rebuilt in the summer. Current-wheel damaged and water supply disrupted in September; Wintu help save hatchery's 7.5 million eggs.

1883 Blasting for railroad construction on the upper Sacramento River prevents salmon runs from entering the McCloud River

1884 Railroad construction continues to block salmon runs into the McCloud; Baird Station operations suspended.

1885 Salmon "scarcer than ever before" in McCloud River (Stone 1887:131). March solar eclipse.

1886 Salmon return "in great numbers" (Green 1887). Last McCloud Wintu communal fishing drive reportedly held at Baird (Du Bois 1935).

1888 Baird Station reopens under supervision of George B. Williams, Jr., with primary purpose to collect eggs for stocking Sacramento River tributaries. Fall run is used for the first time to augment the egg collection.

1892 Stone resumes post as superintendent of Baird Station

1897 Stone leaves Baird Station to take a position at Cape Vincent Hatchery, New York. G. H. Lambson becomes superintendent.

1898 New hatchery constructed. Winter run did not arrive in McCloud River; thousands killed, probably by toxic pollutants, near Keswick in the Sacramento River (USFC 1900; Smith 1902).

1902 Conchoolooloo dies in January and is buried on the fishery reservation.

1935 Baird Station permanently ceases hatchery operations.

1943 Shasta Dam Project completed; blocks salmon access to the Upper Sacramento, McCloud, and Pit rivers. Coleman National Fish Hatchery (Battle Creek) begins operations to mitigate for salmon losses caused by Shasta Dam (Cope and Slater 1957).

1989 Sacramento winter chinook run listed as endangered by the California Fish and Game Commission and as threatened under U.S. Endangered Species Act (Williams and Williams 1991).

1994 Federal listing designation of Sacramento winter chinook run changed to endangered (NMFS 1994).

1998 Newly opened Livingston Stone Fish Hatchery on Sacramento River starts artificial propagation of winter chinook run.

1999 California Central Valley spring chinook run federally listed as threatened (NMFS 1999).

eyes than ours.

Following this extended narrative (for 1872-1884) is a section that briefly recounts later events (post-1888) at Baird Station. A historical outline that includes Baird Station's entire hatchery period is given in Box 1. The paper's final sections present a synoptic commentary on recent circumstances of the McCloud Wintu people and the Sacramento River salmon runs, followed by a brief perspective on the putative early success of Baird Station's mission.

The Beginning

Immediately after arriving on the McCloud, Stone and his small party set to work "... and on the morning of September 1, 1872, the hatching-works of the first salmon-breeding station of the United States were located on this stream" (Stone 1874:169, 1897:207). Their activities were ill received by the local native residents who expressed their displeasure "with furious and threatening demonstrations." Concerning the reaction of the McCloud Wintu, Stone (1876a:408) wrote:

> Their success thus far in keeping white men off had given them a good deal of assurance, and they evidently entertained the belief that they should continue, like their ancestors before them, to keep the McCloud River from being desecrated by the presence of the white man... .They assembled in force, with their bows and arrows, on the opposite bank of the river, and spent the whole day in resentful demonstrations, or, as Mr. Woodbury expressed it, in trying to drive us off. Had they thought they could succeed in driving us off with impunity to themselves, they undoubtedly would have done so, and have hesitated at nothing to accomplish their object; but the terrible punishments which they have suffered from the hands of the whites for past misdeeds are too vivid in their memories to allow them to attempt any open or punishable violence. So, at night, they went off, and seemed subsequently to accept in general the situation.

The McCloud Wintu were forced to accept the reality of Stone's presence—palliated somewhat by the understanding that the fish crew would collect the salmon for eggs but yield the carcasses to the Wintu, thus ensuring the people of their traditional food source (Turner 1875; Stone 1876a,b). The arrangement gained grudging acceptance by the Wintu and, no doubt, eased the way for their eventual participation in the egg-collecting operations. Thus, the stage was set for one of the earliest and perhaps boldest salmon propagation endeavors in the history of North American fish culture, and one which "soon in capacity and actual results eclipsed all other similar establishments in the world" (Stone 1883a:220).

Yet, despite the tentative coexistence of newcomers and natives, there were continuing tensions. In 1873, a white settler named George Crooks was killed in a dispute with certain McCloud Wintu tribesmen on Greens Creek, four miles upriver of Baird Station (Stone 1876a, 1882b). It was there that Stone later established (in 1879) the U.S. Fish Commission's trout hatchery and where his assistant Loren Green had a "little incident" with several Wintu, as related by Stone (1882b:718):

> ...on looking up he saw to his great surprise three Indians standing over him, each with a drawn knife in one hand and a rifle in the other, and here, on the very spot where the last settler was murdered, they told him the same story that they had told the murdered man, viz., that this was their land, that the white men had no business there, and that they did not want white men on the McCloud river at all. The young man had no weapons about him, and was wholly at their mercy. They would undoubtedly have killed him, as they would certainly have been glad to do, if they could have summoned up the courage to face the consequences. But though they staid with him three hours,... they finally left him as they found him, in possession of the place.

California Department of Fish and Game files

The founders of Baird Station in 1873: Myron Green, Livingstone Stone (center) and Willard T. Perrin, as identified in Hedgpeth (1941).

The lingering mistrust during the early years stemmed from the Wintu's resentment and fear that the ever-increasing intruders would usurp their salmon and ancestral land (Stone 1876a,b). Their fears were realized in some instances and seemingly justified in other respects. For example, Stone (1876b:464) reported that in 1874:

> Possibly relying upon the general protection afforded by the presence of so many white men at our camp, one of the neighboring ranchmen did what had never been attempted before on the McCloud, namely, to drive a flock of sheep into the Indian country on the east side of the river. Hitherto this land had always been given up to the Indians for pasture for their horses, and when the sheep came, destroying every blade of grass, and leaving a desolate waste for their horses, the Indians resented it, as well they might. It certainly seemed cruel in the extreme, but, agreeably to the maxim that there is no great loss without some small gain, our camp was kept in capital mutton... from the sheep which

brought such calamity upon the original owners of the soil.

Also, regarding an issue perhaps no less distressing, Stone (1876b:467) noted:

> Near our camp is the graveyard of their chiefs and magnates, where good Indians of the McCloud have been buried for centuries. The living members of the tribe are in constant fear lest we should dig up these graves for relics. This fear, caused without doubt by the casual remarks of our party on the subject, is well illustrated by the following unique petition brought to me one day, with great formality and seriousness. The Indian woman who brought it had employed some white friend to draw it up for her. It reads thus:... 'This is to certify that Mrs. Matilda Charles Empire,... is now on a pilgrimage to the graves of their ancestors, and she prays Commissioner Stone not to disturb any of her friends and relatives who have gone the way of all flesh, and thus they will ever pray... '

Eventually, however, progress in relations was made. Stone (1876b:467) remarked:

> The first two years, 1872 and 1873, they regarded us with more or less dislike and suspicion. This year [1874] there was an entire change in them. They seemed to have learned that we were their friends, that we had a genuine consideration for their welfare...and when I passed over to them the thousands of salmon which we caught and had used for spawning, their hearts were entirely won over, and I think that we now have as individuals the confidence and friendship of the tribe.

As one Wintu expressed to Stone (1876a:409), "I understand,... you give Indian salmon; you only want spawn; that all right!" The Wintu at that time had an oft-used saying, "Chocky yapitoo *chipkalla*; kelail yapitoo *challa*— The white men near here, *bad*; the far-off white men, *good*' (italics in original). "Stone and his men had earned the apellation of "the far-off white men" (Stone 1876b:467).

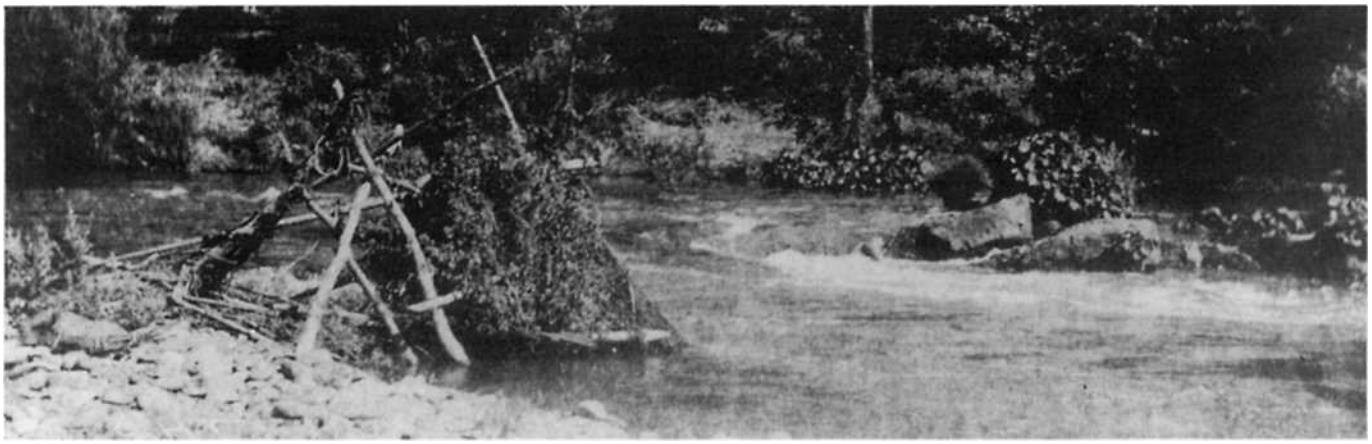
The McCloud Wintu—the "Middle-River People"

Comprehensive general accounts of the Wintu nationality are given by Kroeber (1925), Du Bois (1935) and LaPena (1978). As with many northern California tribal groups, the Wintu on the whole had been substantially affected after 1850 by the massive influx of gold-seekers and settlers into their territories (Merriam 1955; LaPena 1978; Guilford-Kardell and Dotta 1980). By the early 1870s, California tribes had been essentially negated as a threat to settlers (Castillo 1978).

The McCloud Wintu—the "Winemem" in their native language—were a distinctive and numerous subgroup of the Wintu, particularly favored by their salmon rich homeland (Du Bois 1935; Guilford-Kardell and Dotta 1980). They were also fortunate in that the land contained little gold and its rugged nature was ill-suited for farming (Stone 1874, 1897). In this section, we draw on Stone's perceptions of the collective personality of his McCloud Wintu associates and neighbors (herafter, "Wintu"). We also include information from other sources to augment Stone's observations on Wintu salmon fishing.

Stone's early impressions of the Wintu and their ways were given in his first report (Stone 1874:177):

> The Indians themselves are a good-featured, hardy, but indolent race. I found them always pleasant, genial, and sociable, though, like other Indians, very sensitive when their pride was wounded. They at first adopted the plan of ordering all white men out of their country, and were the last of the California Indians to yield to the encroachments of civilization... but the stern consequences of conflict with the whites have taught them to abstain from any violent vindication of their rights. They will still always revenge a wrong inflicted on them by their own people,... but I think they are a well-disposed race by nature, and have no malice naturally in their



Courtesy, National Anthropological Archives, Smithsonian Institution, negative #01516900SPC

Shaded brush-booths for spearing salmon were used by Wintu fishers on the McCloud and Upper (Little) Sacramento rivers: "Above a quiet pool where salmon were in the habit of resting the spearman built a platform to support a brush hut, in which he sat with slender, twenty-foot spear-shaft projecting up through the leafy roof.... These huts...may still occasionally be seen by the traveller from his Pullman window" (Curtis 1924:87). Photograph ca. 1887.

hearts toward any one, and will not injure any one who does not first injure them. Every one told me, before my arrival and during my stay on the McCloud, that the Indians would steal everything that they could lay their hands on. I am glad that this opportunity is afforded me of bearing testimony to the contrary, which I wish to do very emphatically. I would trust the McCloud Indians with anything.... And... on the arrival of some gold coin, when I had reason to expect an attack from *white men* [italics in original], I gave the gold to one of my Indians, and told him that I depended on him to protect that and me till morning.... and the next morning the faithful Indian handed me the gold just as I gave it to him.

With all their good traits, however, murder did not seem to have the obnoxious character that it has among more enlightened people. Almost every McCloud Indian we met had killed one or more men, white or red, in the course of his life, but it was usually because they were goaded to it by ungovernable jealousy or revenge....

The McCloud Indians live and sleep in the open air in the summer. In the rainy season they build wigwams or huts of drift-wood and dry logs, which they inhabit pretty comfortably through the winter. In the summer and fall they live mainly on the salmon and trout which they spear. In the winter they live on the salmon which they catch and dry in the fall, and on acorns, which they gather in great quantities in the woods. They hunt with bows and arrows, with which they occasionally kill a bear, though a few of the more enterprising have rifles. They trap a very little, but the salmon of the river are so abundant that they are not obliged to resort to hunting and trapping at all, and do not do much of either.

The McCloud Wintu employed a variety of salmon-fishing techniques—viz., spear, basket-trap and nets (Stone 1874; Curtis 1924; Du Bois 1935). Spearing was done in the open, at favored spots along the river (E. C. Stone 1896), or in conjunction with small brush-booths (Redding 1881; Townsend 1918; Du Bois 1935). Stone (1884c:302) noted:

> The usual method practised by the McCloud River Indians for capturing salmon is spearing. Their spear is a very long and comparatively slender pole, thickest in the middle, and tapering toward both ends... twenty-five feet may be considered a fair average length... and in the middle it is not far from an inch and a half or two inches in diameter. It is always painted black with a preparation of pitch.... When preparing to strike the fish, the Indian poises the spear over his head, and throws it with great velocity at the victim.
>
> The Indians throw their spear with great dexterity, and are usually successful in getting salmon with it. They go spearing in the morning and evening, but usually in the morning, from daylight to sunrise. They capture with the spear nearly all the salmon that they eat fresh; but in the fall, when they are preparing to dry their winter's stock of fish, they catch them in another way.

Spear-points "made of ankle-bone of deer... for spearing salmon" were among the many Wintu artifacts sent by Stone to the Smithsonian Institution (Stone 1876a:427; cf., Sargent 1880b).

Small brush-booths for spearing salmon were used by the Wintu on the McCloud and Upper Sacramento rivers (Sargent 1880b; Townsend 1918; Curtis 1924). These structures were "about six feet high," built of a framework of poles covered with leafy boughs and shaped like a "tall beehive" (Sargent 1880b:441; Redding 1881:444). In describing them, State Fish Commissioner B. B. Redding (1881:444) remarked:

> The ingenuity displayed by the Wintoon Indians, of the McCloud, in capturing salmon, shows a knowledge of some of the laws of physics hardly to be expected from so primitive a people.... Everything being ready, the Indian lies on the poles.... No light comes to his eyes except that coming up through the water.... The Indian can see to the bottom of the stream, and all the fish that pass, while the fish cannot seen him. With his spear always poised,... but few of the unsuspecting salmon escape, that venture to pass beneath his structure.

These booths or "salmon houses" ("buki") were recognized as belonging to individual family-groups but etiquette dictated that anyone could visit them during fishing and expect a gift of salmon, at times leaving the owners with few fish by the end of the day (Du Bois 1935).

Stone (1876b:469) reported, "The Indians fish a good deal in the river about this time [August 13], at night, diving, themselves, for the salmon with a hand-net, which they use in the water with wonderful skill"; "but this mode is only resorted to once or twice a year, and is made an occasion of festivities rather than a means of acquiring food (Stone 1884c:302)."

Large communal fishing drives were conducted during midsummer at night on the McCloud and Sacramento rivers using nets of various sizes, the salmon being herded and caught by teams of netters, torchbearers, and fish-clubbers (Curtis 1924; Du Bois 1935). Torchbearers generally waded along the river and only a few individuals were skilled in swimming with torches (Du Bois 1935). Sargent (1880b:442) described one such nocturnal salmon drive whereby "ancient custom and superstition called for a starlight night" and the torchbearer swam down the rapids with a large torch of bundled pitch pine "some seven or eight feet in length, and a half a yard or more in circumference."

She observed:

> The torch buoys him up, for the greater part of it is under water. The blaze ... gives a ghastly appearance to the upturned face that ducks under the water every few moments to wash off the falling sparks. After him come the whole band, yelling through the foam, frightening and dazzling the fish.... The men with the net disap-

They seemed to have learned that we were their friends, that we had a genuine consideration for their welfare... and when I passed over to them the thousands of salmon which we caught and had used for spawning, their hearts were entirely won over...

> pear, as they swim right into the midst of a dark pool of salmon.... Indians who can carry a torch successfully, or dive with the net and bring up the most fish, are held in great respect.... To dodge the rocks in the rapids, and dive in almost bottomless holes, requires both expertness and fearlessness (Sargent 1880b:443).

Stone (1874:172, 1897:208) noted:

> Most of the salmon used for drying are taken in August and September, when they are spawning or falling down the river exhausted, after spawning. They are then easily captured by spearing, or by traps.

He described the primary Wintu means of catching post-spawned salmon, unusable for his own purposes but eminently suited for procuring a winter supply:

> The Indian trap consists of a fence of stakes or bushes, built out into the river, at a fall or rapid, in the form of a letter V, having the angle down stream, and a basket-trap at the angle. This method proved perfectly worthless, as of course it must, for catching healthy fish, as this contrivance catches only the exhausted fish that are going down the river, and none of the good fish that are coming up.

To dodge the rocks in the rapids, and dive in almost bottomless holes, requires both expertness and fearlessness.

And, in reference to specimens of dried salmon procured for the Smithsonian Institution, Stone (1874:210) commented:

> The Indians, very singularly, *prefer* the exhausted and dying salmon for drying to the fresh and prime ones. As soon as a salmon is speared or taken from the trap it is opened—the spawn always being saved as a luxury—and split and hung on a bush or fence made for the purpose, in the open air.... When the salmon are sufficiently dried, they are tied together in bundles, and packed away around the sides of the lodges. These specimens were presented by one of the McCloud chiefs, and, repulsive as they seem, they represent the main support of the Indians during the winter, and are highly valued by them (italics in original).

Judging from the migration timing of Sacramento River salmon (Vogel and Marine 1991; Yoshiyama et al. 1998), the salmon that the McCloud Wintu primarily dried for their winter food-stores were of the spring chinook run caught during the spawning season (August-September). The winter chinook run, reportedly "abundant" in the McCloud River during June and July (Stone 1874:183), undoubtedly also was harvested. The fall chinook run, which entered the McCloud River mainly around mid-October and later (Stone 1874; USFC 1896b; Du Bois 1935) probably were used to some degree, but their availability would have been limited as the rainy season progressed (e.g., USFC 1893, 1895, 1896a).

Stone's reports made no mention of salmon-related ceremonies such as the often mandatory "first-salmon" rites observed by many salmon-fishing tribes in the Pacific Northwest region (Gunther 1926; Suttles 1990) and California (Gunther 1928; Swezey and Heiser 1977; Yoshiyama 1999). Stone's heavy schedule during the salmon season may not have allowed him to observe some key Wintu ceremonies which most likely were held away from the hatchery location. Invitations to some Wintu celebrations were extended to the station's denizens; e.g., "The Indians have gone over the mountains on a bear-hunt... and, if they are successful, they will give a Chil-chu-na, or bear-dance. The old chief, Con-choo-loo-loo, invites you to be present" (Sargent 1880a:465. Notably, one visitor reported witnessing, in the summer of 1879, a salmon-related ceremonial dance at a Wintu village about one mile above Green's Creek:

> We learned that the dance and gathering was an annual meeting, partly religious, and that it is given as an expression of gratitude for the return of the salmon to the river (Redding 1880:564).

However, in a later extensive survey of the Wintu, Du Bois (1935:15) stated, "There was no trace of a first-salmon ceremony." Possibly by that time any former first-salmon or related ceremonies had been long abandoned and communal memories thereof faded, particularly if the ceremonies were seemingly only subtly connected to salmon.

Workers and Allies

The Wintu quickly became an integral, if not indispensable, part of Baird Station's activities. In 1874, Stone's crew "numbered nine white men in all" and a Chinese cook brought up from San Francisco, bolstered by "more or less Indians throughout the whole season, the largest number working on any one day being fourteen" (Stone 1876b:437). By 1879, the Wintu contingent had increased to twenty or thirty workers each year, and Stone (1882a:699) came to the opinion:

> ...they are very efficient and valuable assistants, particularly in handling the fish, drawing the seine, picking over the eggs, and similar work. If we could not have the Indians to help us, it would be very difficult to supply their place.

Stone (1883b:598) further remarked on his Wintu associates:

> I cannot speak in too high terms of the character of the work which some of the Indians do for us. There are now [1880] nearly a dozen of them who have been with me, more or less, since I came to the McCloud River, who are splendid workers. They are faithful, steady, industrious, and very intelligent. During my first year here I gave all the Indians the same pay; now I discriminate between the best workers and the others, and give the higher class 25 or 50 cents a day more than the rest. This little addition to their pay, or probably the distinction which it implies, affects them perceptibly, and it becomes quite conspicuously a matter of pride with them to make their work correspond with their increased pay.

The Wintu's abilities to work in the water were especially valuable:

> We discovered one day that the salmon, by their violent and repeated attacks on the dam, had at last forced a passage-way underneath the rack and were escaping. I immediately put three Indians on the break to repair it. The water was very cold and very swift, and it would have been extremely difficult for white men, unless experienced divers, to do the work; but the Indians, diving down to the bottom of the river... worked with great skill and perfect self-possession, although remaining sometimes a very unpleasantly long time under water.... I do not know how we should get along without them, particularly as the snow-water of the McCloud is so cold that white men cannot stay in it any great length of time. (Stone 1880:745).
>
> Twice, when the seine got snagged in deep water, it would have been almost impossible for us to have freed it without Indian help. On each occasion they dove for the net and released it, the water being quite deep and at the time almost like ice water.... They are the best men we could have when work is to be done in the water or fish are to be handled (Stone 1884b:840).

The task of winnowing dead eggs from the live ones presented a challenge that was met from another quarter:

> The best help for doing this I have found to be the more careful class of Indian women. These women, accustomed to patient and monotonous labor, are unusually adapted to the work and give excellent satisfaction. Many, especially the younger and more frivolous ones, I have found it necessary to discharge, but there are some who work faithfully and patiently at it, whose work could not be surpassed. The patient habits which their native education has given them, together with their dexterity and delicacy of touch, especially fit them for this kind of labor (Stone 1878b:942).
>
> These Indian women come regularly to the fishery every year when the proper season arrives and pick over the eggs daily.... Some of them, I think, have picked over the eggs every year of the ten years that the station has been in existence on the river, and the station could hardly get through the picking season without them (Stone 1883a:228).

The Wintu contribution to Baird Station's operations was recognized by U.S. Fish Commissioner Spencer F. Baird who noted, "Mr. Stone pays a tribute of acknowledgment to the industry and fidelity of the Indians living on the [fishery] reservation; no class of men, perhaps, being better able to render the service required" (USFC 1883:XXIX). Again, "Mr. Stone... bears cheerful testimony to the help of the Indians in the vicinity of the station. Their services were almost invaluable to him in the prosecution of his work" (USFC 1884b:LXX).

Most of Baird Station's Wintu workers were unnamed, but there was "Lame Ben, Uncle John, One-eyed Jim and others" in 1873 and "Jeff Davis" in 1882 (Stone 1876a:403, 1884b:840), and "Indian Joe" was mentioned in Stone's unpublished correspondence to Spencer Baird (letter of 15 September 1875, Smithsonian Institution Archives, Record Unit 52, Incoming Correspondence Vol. 206). "Chicken Charley" was a familiar figure at the fishery locality (Sargent 1880a; Stone 1880), but it is unclear whether he helped in the operations. Also, during 1883, "Short Jim" and other Wintu assisted at the U.S. Fish Commission's trout hatchery on Greens Creek, upriver from Baird Station (Stone 1885c). Their often unusual names led Stone once to express concern that the payroll voucher for the Wintu workers might be viewed as a joke by the penurious accounting clerks at the Treasury Department (letter of 15 September 1875, as cited above).

A severe flood in February 1881 destroyed Baird Station, but the facilities (shown here) were rebuilt later that year. Photograph (undated) from Stone (1897).

The local Wintu leaders noted by Stone were "Conchoolooloo, the head-chief of the tribe, [who] lived very near us on the bank of the river" and "Jim Mitchell," a village headman who lived in the forest a half-mile away at the site of a Wintu "porum boss," or council-house (Stone 1876b:467). Stone (1874:213) stated, "Con-choo-loo-la [sic] is probably the last of the great chiefs of the McCloud Indians." That personage

evidently was the same chief Kaltcululi or Kolcho-loo-lie recorded by others (Du Bois 1935; Hogue 1977). Du Bois (1935:22,32) stated that Kaltcululi was respected "for his sagacity and wisdom" and regarded as "the most noted craftsman of the McCloud area" in his time.

Finally, the disciplined efforts of the non-Wintu hatchery workers earned effusive praise from Stone and other observers (Turner 1875; Stone 1876b; Hedgpeth 1941).

> With the time and men at my command, the construction of the bridge and dam was an undertaking of no small magnitude... the more serious because the snow-water which forms the river is so cold that the men working in it... could not endure it long without severe suffering. Fortunately, I had with me a force of loyal and resolute men, who were daunted at nothing, and through their courage and resolution these and all other obstacles were overcome (Stone 1876b:438).

Even modern readers may appreciate Stone's (1876b:460) keen enthusiasm:

> I think I ought to mention particularly here the services rendered by Richard and Waldo Hubbard, grandsons of Governor Hubbard, formerly United States Senator from New Hampshire. These two young men were always found equal to any occasion... Tall, stalwart, and muscular, they added a good deal to our reputation with the aborigines of the McCloud by throwing their champion wrestlers, while their strength, at the same time, when turned, as indeed, it always was with undauntable resolution and energy, to the work of the camp, rendered their services invaluable.... By singling out these two, I do not mean to disparage the others, for all worked well, and the Hubbard boys typified rather than contrasted with the work that was done by all.

Events and Operations at Baird

The first years of Baird Station's operations were filled with the challenges and uncertainties of capturing and spawning the salmon and handling the eggs. Indeed, the entire venture in seeking Pacific salmon eggs for the Atlantic coast streams was viewed "with great distrust," as Stone (1883a:217) reflected:

> It was considered very doubtful whether California salmon eggs could be procured in large quantities. It was considered doubtful whether, under the changed conditions of the Pacific slope, salmon eggs could be brought to the shipping (packing) age in a healthy state; and finally it was generally thought to be decidedly impracticable to transport them alive a distance of over three thousand miles from one ocean to the other...

On a familiar note, the vagaries of funding discommoded those early fishery workers:

> More than once my remittances from Washington being unexpectedly delayed, we were obliged to sell part of our clothing and some of the cooking utensils to obtain money for our immediate necessities (Stone 1883a:217).

The early operations were marked by continuous innovation by Stone's crew and, while the egg-takes were limited, they proved the practicality of the venture (Stone 1876a,b, 1897). In the first year, 1872, Stone obtained spawners from the Wintu for "a slight money consideration" (Stone 1897:221). The first batch of eggs was spoiled because of water-supply problems, but additional eggs were obtained "by hook and by crook, by resorting to every possible means of securing spawning fish" (Stone 1883a:220).

In 1874, the construction of a weir and bridge across the McCloud to block the salmon run was an event of great importance because it confined the salmon in the river where they remained in healthy condition but were easily captured (Stone 1876b, 1897). The effect of the weir was dramatic:

> About four o'clock in the afternoon, a few days after the passage of the salmon was obstructed,... it was announced that the salmon were making their first assault upon the dam. The whole camp collected on the bridge to witness the attack. It was a sight never to be forgotten. For several rods below the bridge the salmon formed one black, writhing mass of life.... Piled together one above another, they charged in solid columns against the bridge and dam, which trembled and shook continually

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McCloud Wintu tribespeople assisted in salmon egg-collecting operations at Baird Station on the McCloud River, California, during the 1870s and early 1880s. Photograph ca. 1882.

under their blows. Not daunted by their repeated failures, they led attack after attack upon the fence,....

For an hour and a half this fierce assault continued, when, exhausted by their efforts,... they fell back... arrested, for the first time since the McCloud formed its channel, in their progress up the river. The Indians, who were watching their movements, were wild with excitement over the scene, which, even after a residence of centuries on the river, was new to them, and they begged for permission to spear the salmon. This, however, I did not give, as I felt obliged to save all the fish for their spawn (Stone1876b:440).

There was the challenge and excitement of capturing the salmon:

> At a given signal three Indians jumped into the foaming rapids below the bridge, and by splashing the water with their arms and limbs and making as much of a disturbance in the water as possible did everything they could to frighten the salmon out of the rapids. On reaching the deep holes, where the fish lay collected by hundreds and perhaps thousands, the Indians dove down in the very midst of the swarms of salmon, and, stirring them up with their long poles, succeeded in driving them out.... The Indian swimmers, their dark heads just showing above the white foam, screaming and shouting in the icy waters and brandishing their long poles, came down the rapids at great speed, disappearing entirely now and then as they dove down into a deep hole. As soon as they approached within about four rods of the fishing-skiff, the boat shot out from the shore, the second boat man braced himself and his oars for a quick pull down along the bank. The man at the stern of the first boat began paying out the seine, the fishermen on the beach gathered at their respective ropes, the men on shore began throwing rocks in the rapids, and in a few moments the net was drawn to the beach with an enormous mass of struggling, writhing salmon, often weighing in the aggregate not less than four or five tons (Stone 1880:751; 1897:214).

The great abundance of chinook salmon in the McCloud River—perhaps the most celebrated salmon stream in California (CFC 1890; Stone 1897)—deserves mention. Stone (1897:212) remarked, for the season of 1875:

> They were so thick in the river in July that we counted a hundred salmon jumping out of the water in the space of a minute, making 6,000 to be actually seen in the air in an hour. Nearly 9,000,000 eggs were taken, and there were more to be had for the taking.

The presence of salmon in spawning condition during that July would indicate great numbers of Sacramento winter-run chinook salmon.

Even more impressively, "1878 was the year of the immense gathering of salmon in the McCloud" (Stone 1897:218). Stone (1880:749; 1897:213) marveled:

> I have never seen anything like it anywhere, not even on the tributaries of the Columbia. On the afternoon of the 15th of August there was a space in the river... where, if a person could have balanced himself, he could actually have walked anywhere on the backs of the salmon, they were so thick.... This leads me to say that the most extraordinary feature about the fishing season this year was that the salmon in the river did not seem to be diminished by our constant seining. We made enormous hauls with the net every day, spawned a large number of salmon, and gave a large number to the Indians for their winter supply, but always the next day the spawning salmon seemed to be as thick as ever.

The date of that observation would have corresponded with the spring run. For the spring run alone of that year, Stone (1880:763) attested:

> During this time [the 40 days before October 5] we caught and examined, one by one, nearly 200,000 salmon. We took and impregnated at least 14,000,000 eggs.

Also in 1878, in apparent reference to the winter run spawning in the upstream reaches:

> By the 10th of July,... the river was closed to the upward migration of the salmon. I was the more willing to close the stream as early as this because vast numbers of full-grown salmon,... had escaped the nets of the Sacramento fishermen and had already fully stocked the upper waters of the McCloud with spawning fish (Stone 1880:742).

However, despite the seeming plenitude of salmon, unrestrained commercial fishing on the Sacramento River at times seriously depleted the numbers and sizes of spawners entering the McCloud River (Stone 1879, 1882a)

Perhaps the darkest time at Baird was during 1878, engendered by apprehensions of a widespread native uprising among all the western tribes "between the Missouri [River] on the east and the Cascade Range and the Sierra Nevadas on the west" (Stone 1897:214). The most immediate trouble stemmed from outlying groups in northern California who threatened violence against the station and associated McCloud Wintu, and Stone (1882a:699) also noted there were "threats of mischief... by some restless spirits nearer home" and "many Indians not far from us had caught the infection." Stone (1880:747) observed:

> Some of our Indians were very much alarmed, and for several days a good deal dejected over this news, and they told us stories of ancient fights that they had had with the northern Indians, and how the Modocs and Yreka Indians had made war on them and burned their children and carried off their squaws... and we began to think that there might be something serious in the excitement in our neighborhood. At all events, as we had only one rifle at the fishery I thought it prudent to be at least better armed, and accordingly telegraphed for arms and ammunition. The

I have never seen anything like it anywhere, not even on the tributaries of the Columbia. On the afternoon of the 15th of August there was a space in the river...where, if a person could have balanced himself, he could actually have walked anywhere on the backs of the salmon, they were so thick....

excitement, however, gradually died away.... This was the end of our Indian scare, and after this we thought nothing more about it.

With news of hostilities from farther afield "having been checked by the vigilance of the War Department," the fish commission crew resumed its focus on collecting salmon eggs (Stone 1882a:699). It was also in 1878 that a post-office was established at the fishery reservation and named Baird, and the hatchery thereafter was officially known as Baird Station (Stone 1883a, 1897).

An unprecedented catastrophe occurred in January-February of 1881 when torrential rains flooded the McCloud River, washing away Baird Station and, perhaps more grievously, part of the neighboring ancestral Wintu burial ground:

> Again the river fell, but this time the fall was succeeded by the greatest rise of water ever known in this river before, either by white men or Indians now living... the rain poured down in torrents. It is said by those who saw it that it did not fall as rain usually falls, but it fell as if thousands of tons of water were dropped in a body from the sky at once.... On the 2d of February the McCloud River began to rise at the rate of a foot an hour....
>
> The water was soon a foot above the danger-mark, and the buildings began to rock and totter as if nearly ready to fall... they toppled over with a great crash and were seized by the resistless current and hurried down the river.... When the day dawned nothing was to be seen of the main structures which composed the United States salmon-breeding station....
>
> It must be over two centuries since the McCloud River rose, if ever, as high as it did last winter...for just behind the mess-house, and exactly under where the fishery flag floats with a good south breeze, is an Indian grave-yard, where the venerable chiefs of the McCloud have been taken for burial for at least two hundred years, and there is no knowing how much longer. One-third of this grave-yard was swept away by the high water last winter, and the ground was strewn with dead men's bones.
>
> Now, the fact that the Indians have been in the habit of burying their dead in this spot for two centuries proves that the river has never risen to the height of last winter's rise within that time, for nothing could induce Indians to bury their fathers where they thought there was the least danger of the sacred bones being disturbed by floods (Stone 1884a:1063, 1897:215).

Still another challenge "of the gravest character" came later that fall when the current-wheel was badly damaged, thus disrupting the hatchery's water supply and imperiling the entire season's collection of eggs. As related by Stone (1884a:1071):

> It happened the 18th of September, on a remarkably quiet and pleasant Sunday morning....
>
> As soon as the accident was discovered not a moment was lost in establishing a line of buckets from the river to the hatching house to supply water to the eggs. Every white man and Indian that could be pressed into service was employed,.... I do not know what we could have done in this emergency without the Indians; but I do not think we could have saved the eggs except by their aid. They worked splendidly, most of them from eleven o'clock in the morning, when the wheel broke down, until four o'clock the next morning, when it was started again—seventeen hours of continuous work, with two very short interruptions,... some of them were carrying buckets of water that weighed sixty or seventy pounds each.... I do not think they could have held out much longer. I have seen white men look as tired as they did, but I never saw such a tired look on Indians' faces before as there was on the faces of those red heroes who saved our salmon eggs.... I must not forget to say here that the white men worked as heroically as the Indians, though their work was not as exhausting...

Instead of seeing from 6,000 to 8,000 jumping in an hour,...I did not see one jump for several minutes. In the meantime all the Indians we met had the same story to tell—that there were no salmon in the river.

Notwithstanding the successful efforts of the Baird Station work-force to fulfill the station's mission for over a decade, external events overtook them. In 1883, railroad construction on the Upper Sacramento River obstructed and destroyed much of the salmon run, causing "great dismay... [over] the nonappearance of the salmon in the upper tributaries of the Sacramento" (Stone 1897:216). Stone (1885b:989) testified for that year:

> We unpacked the new seine... and made a haul with it,.... Instead of catching five hundred or a thousand salmon, we caught but one, and that a small one.... Instead of seeing from 6,000 to 8,000 jumping in an hour,... I did not see one jump for several minutes. In the meantime all the Indians we met had the same story to tell—that there were no salmon in the river.

Similar circumstances in 1884 let to the closure of Baird Station for four years (Stone 1886, 1897).

All during that early period, too, the McCloud Wintu waned. By 1879, Stone (1882a:700) had noted their decline:

> Settlers are beginning to come to the McCloud River. They take up a claim, burn the Indian rancherias, shoot their horses, plow up their graveyards, and drive the Indians back into the hills, the ultimate result of which must be approximate starvation.

It was said that the McCloud Wintu held their last communal fishing drive at Baird "around 1886" (Du Bois 1935:15).

Afterwards: Tides of Change

Baird Station was reopened in 1888 and resumed shipments of salmon eggs to eastern U.S. destinations. More importantly, a large portion of the collected eggs were reserved for stocking local streams "with the definite purpose of aiding in the maintenance of the salmon fisheries of the

Sacramento River, which had been for several years rapidly deteriorating" (USFC 1892:XXXV). Stone and his workers had stocked fry into the McCloud River and other northern Sacramento River tributaries as early as 1874 and 1875 as an ancillary activity (Stone 1876b, 1878a, 1897)—averaging more than two million eggs annually in the late 1870s and early 1880s (Stone 1882a, 1884a; Smiley 1884b). However, the greatly depressed condition of the Sacramento salmon runs in the late 1880s called for intensified efforts (USFC 1892). By the early 1890s, the great majority of eggs taken at Baird Station were hatched either there or at Sisson Hatchery on the Upper Sacramento River and the young salmon planted in the McCloud River and other Sacramento River tributaries (USFC 1894, 1895, 1896a).

While the results of early plantings of Pacific salmon into eastern U.S. streams and foreign countries generally were failures (Stone 1897; Hedgpeth 1941; Towle 1987), it was believed that the Sacramento River salmon runs were maintained largely as a result of stocking operations from Baird Station (Stone 1882a; Smiley 1884a; CFC 1900). Stone (1884a:1070), for example, enthused:

> I may add here that this vast increase in the number of salmon in the river is the direct result of the artificial hatching of young salmon at this place. For several years past the United States Fish Commission has presented to the State of California 2,000,000 salmon eggs or more each year.... This artificial stocking of the [Sacramento] river has resulted in a wonderful and wholly unprecedented increase of salmon in this river.

Likewise, one California fish commissioner avouched to the state legislature that "a million of salmon could be artificially hatched and placed in the river for less than $800; and if it were desirable, and the legislature made sufficient appropriation, the commissioners *could fill the river so full of salmon that it would be difficult for a steamboat to pass through them*" (italics in original; Smiley 1884a:202). Yet, the efficacy of those early plantings was later questioned (Hedgpeth 1941; Skinner 1958)—but whatever the cause, the salmon returned to the McCloud River, occasionally in great numbers (Green 1887; Guilford-Kardell and Dotta 1980).

In 1897, Livingston Stone transferred to a new post on the East Coast and G. H. Lambson took charge of the McCloud River operations (USFC 1899). By that time college men were routinely employed at Baird Station for one dollar a day during summers (Hedgpeth 1941) and the Wintu apparently were no longer a major part of the workforce. In January 1902, Conchoolooloo, friend and ally, passed away. Lambson eulogized the old chief:

> He was a consistent friend of the white people, and in former years saved the superintendent from being killed by the Indians. His influence was always exerted toward keeping his people sober and industrious. He was buried on the [fishery] reservation upon a hill, where he had selected a site for his grave (USFC 1904:73).

Of Stone, who died in 1912 (Hedgpeth 1941), it may suffice to quote Wintu tribesman Joseph B. Campbell, who was born in September 1872, the same month and year Baird Station was established (Hogue 1977:61):

> My boyhood was spent on the McCloud. I watched the rebuilding of the salmon hatchery at Baird, about 1881.... Livingston Stone was superintendent then. The Indians liked him.

In the end, the McCloud River salmon runs eventually diminished and Baird Station ceased hatchery operations in 1935 (Hedgpeth 1941). The McCloud Wintu likewise continued to fade, their destiny seemingly twined with the salmon. By 1938, large portions of the McCloud watershed were held by non-Wintu entities. Of almost 50 miles of river historically accessible to salmon (up to Lower McCloud Falls; Yoshiyama et al. 2001), the uppermost 34 miles (69%) alone were controlled by the newspaper magnate William Randolph Hearst and two private fishing clubs (Wales 1939). Wales (1939:288) stated:

> The salmon and the Wyntoon Indians, once abundant, are now almost gone. The Indians, though disappearing rapidly, will probably be represented by a few scattered individuals along the river after the salmon have been shut off completely by the new Shasta Dam....

The completion of Shasta Dam in 1943 as part of the Central Valley Project blocked the salmon runs from all former spawning grounds in the upper Sacramento, McCloud and Pit rivers (Needham et al. 1943; Slater 1963; Yoshiyama et al. 2001), while the rising waters of Shasta Reservoir displaced the remaining Wintu from the lower reaches of the McCloud (Smith and Weymouth 1952; Slater 1963). Final testimonies by Wintu informants just before their exodus from the McCloud watershed are given in Hogue (1977).

To be, or not to be: that is the question

After their displacement from the lower McCloud River, a number of the McCloud Wintu continued to reside in areas just south of Shasta Reservoir, mainly near the city of Redding (L. C. Malone, Wintu Tribal Council, pers. comm.). By 1948, for the entire Shasta County (which includes roughly half of all ancestral Wintu lands; Du Bois 1935) there were records of "only 687 Wintus, including mixed bloods" of all Wintu subgroups combined (Hogue 1977:2). The 1990 Census tallied 2,244 Wintu persons (LaPena

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Chinook salmon eggs or fry from the McCloud River were eventually sent to at least 37 states and 14 countries, including destinations as far away as Italy, Japan, Australia, and New Zealand.

1994). Specific enumeration of tribal membership is often complicated by the mixed tribal ancestries of contemporary native people but the current number with Wintu affililation may be roughly estimated at 2,500 persons (L. C. Malone, pers. comm.).

Today, as with many Native American groups in California, the Wintu people are not formally recognized as a tribal entity by the United States government. The lack of federal recognition of numerous Native American tribes or local communities ("rancherias") in California and elsewhere stems largely from past U.S. legislation that divested various native groups of tribal status and, hence, of their cultural identity—viz., Dawes Allotment Act of 1887 (24 Stat. 388) and Termination Acts of 1953 (House Concurrent Resolution 108 and Public Law 83-280, 67 Stat. 588) (AILTP 1988; Forbes 1993; Marino 1994) and the California Rancheria Act of 1958 (Public Law 85-671, 27 Stat. 619 as amended in 1964 by 78 Stat. 390) (Castillo 1978; Forbes 1993). A practical consequence of the termination policy for many groups was the curtailment of federal entitlements (e.g., health care, housing and educational benefits) to which tribal members formerly had access and the loss of extensive tracts of tribal lands (Kehoe 1992; Marino 1994; Wilson 1998).

The combined Wintu and a number of other California native groups currently seek federal recognition of tribal or "band" status (Kehoe 1992; LaPena 1994)—a long and complex process that a U.S. Bureau of Indian Affairs (BIA) official once described as "more difficult and time-consuming than getting approval to build a nuclear reactor" (Sacramento Bee, 24 February 2000). Wintu actions toward gaining federal recognition were initiated almost thirteen years ago (L. C. Malone, pers. comm.). Aside from the more commonly taken BIA process, federal recognition alternatively may be granted through congressional action or by executive order (D. Theodoratus, California State University, Sacramento, pers. comm.).

As for the salmon runs that formerly entered the McCloud River and adjacent branches of the upper Sacramento River drainage, the winter chinook run thrived for a while below Shasta Dam. However, continued degradation of environmental conditions eventually caused the run's precipitous decline and consequent listing as endangered under both federal and state endangered species laws (Williams and Williams 1991; Yoshiyama et al. 1998). The spring chinook run also declined and was listed by the state as endangered and federally listed as threatened (Yoshiyama et al. 1998; NMFS 1999; Moyle 2001). The Sacramento River fall chinook run is still abundant, although its numbers are substantially less than half a century ago and are heavily sustained by hatcheries (USFWS 1995; Yoshiyama et al. 2000). Recent trends in spawning escapements in California Central Valley rivers indicate that the salmon runs have started to recover from the very low levels of the early 1990s (PFMC 1999; Yoshiyama et al. 2000). Nonetheless, the overall depressed numbers of all Central Valley salmon runs bear testament to the slings and arrows of outrageous fortune and sea of troubles that the salmon, like the Wintu, have faced since that time long ago when Livingston Stone first saw them.

Finis?

We have tried to convey, largely through Livingston Stone's near-forgotten writings, the early story of Baird Station—the efforts of the first U.S. Fish Commission crews and their Wintu associates to supply salmon eggs for stocking eastern United States rivers and for shipments to other countries (Hedgpeth 1941; Towle 1987; Yoshiyama 1999). Surmounting physical challenges and social obstacles, the Euro-American and Wintu hatchery workers cooperated to collect over 70 million salmon eggs during the first decade or so (1872-1883) of operations (USFC 1884a; Stone 1885a), from which more than 18 million young salmon were planted in the Sacramento River system (Smiley 1884a) and over 33 million eggs were distributed to other United States streams (Smiley 1884b; Stone 1884a; Towle 1987).

Chinook salmon eggs or fry from the McCloud River were eventually sent to at least 37 states and 14 countries (Smiley 1884b; Towle 1987), including destinations as far away as Italy, Japan, Australia, and New Zealand (Stone 1876b; USFC 1878, 1899). Admittedly, very few of the distant plantings were successful and the grand scheme to establish Pacific salmon fisheries throughout the Atlantic seaboard and in the Mississippi River drainage, as well as overseas, ended in almost total failure (USFC1892; Stone 1897). By 1888, U.S. Fish Commissioner Marshall McDonald was forced to conclude:

> These experiments were undertaken on a scale unprecedented in the history of fish-culture. Millions of eggs were transferred to the eastern stations,... and the fry planted in nearly every one of the larger rivers south of the Hudson. In no single case did the experiment prove satisfactory... (USFC 1892:XXXV; Stone 1897:219).

Stone (1897:219) further remarked:

> ...the result was a stupendous surprise and disappointment. The eggs hatched out beautifully. The young fry, when deposited in the fresh-water streams seemed to thrive equally well. They grew rapidly and when the proper time came were observed to go down in vast numbers to the sea. What afterwards became of them will probably remain forever an unfathomable mystery.

With the clarity of hindsight, the failure of that planting program might be largely ascribed to the haphazard allocation of salmon eggs and fry to destinations determined more by the enthusiastic imagination of sportsmen and fish culturists, as well as political demands, than by their ecological suitability for the fish (Bowen 1970; Towle 1987; Lichatowich 1999). The unbounded optimism underlying those early hatchery and planting efforts for salmon was seemingly justified by notable successes with some other species—e.g., carp (*Cyprinus carpio*) from Europe into the United States and American shad and striped bass (*Morone saxatilis*) from the Atlantic coast to California (Smith 1896; Shebley 1917)—although the potential ramifications of wholesale translocations of non-native species were not fully appreciated and often hardly considered (Bowen 1970; Dill and Cordone 1997). The emerging sentiment of that era on the promise of artificial fish propagation was articulated by George B. Goode, Assistant Director of the U. S. National Museum, who noted that the salmon rivers of the Pacific coast were "so thoroughly under control by the fish-culturist" that it was possibly "cheaper to make fish so plenty by artificial means, that every fisherman may take all he can catch, than to enforce a code of protection laws" (Goode 1886:1152). That perspective was subsequently belied by the widespread depletion of salmon stocks through overfishing and massive environmental alterations (Netboy 1973; Lichatowich 1999). Nonetheless, the rapid development of fish culture in the United States from the late-1860s onwards engendered a fisheries management gestalt based on artificial propagation and widespread transplants of salmon and other fish stocks far beyond their natural ranges (Smith 1896; Bowen 1970; Lichatowich 1999)—the pervasive consequences of which may never be fully understood but which we must now confront in fisheries restoration efforts (NRC 1996; Lichatowich et al. 1999; Reisenbichler and Rubin 1999).

Yet, despite the overall failure of those initial, far-flung plantings of salmon, it was Stone's early shipments of spring-run chinook salmon eggs to New Zealand that laid the groundwork for later plantings of fall-run chinook salmon (from Battle Creek and other northern Sacramento River tributaries) in 1901-1907 that eventually thrived in those streams half a world away (USFC 1902; Hardy 1972; McDowall 1994). The New Zealand stocks are among the few cases where self-sustaining chinook salmon runs have been established outside the natural species range (Davidson and Hutchinson 1938; Healey 1991; McDowall 1994).

Stone's reports are relevant to the efforts of present-day fisheries workers to rebuild salmon stocks in California because they attest to the countless numbers of salmon that once swam the McCloud River, from which they are now debarred. Furthermore, his detailed accounts are notable not only for their enduring grace and general historical value but because they provide irrefutable documentation of the occupancy by the Wintu people on the lower McCloud River back to circa 1870 and evidently much earlier (Stone 1884a, 1897). Indeed, Stone's accounts of the McCloud Wintu and their unmatched salmon trove were briefly presaged by the ethnographer Stephen Powers' notes on the "Wintun":

> A party of six Indians on McCloud's Fork speared over 500 [salmon] in one night, which would at moderate calculation give 500 pounds to each spearman... (Powers 1874:532; 1877:234).

Such evidence of long-term residency is important in the efforts of contemporary Native American groups such as the Wintu to gain federal acknowledgment of their tribal identity.

In closing, Livingston Stone, a founding member of the American Fisheries Society, received crucial assistance from the McCloud Wintu people in his mission to supply eggs for the U.S. Fish Commission's salmon plantings in the eastern United States and the California Fish Commission's hatchery program to perpetuate the Sacramento River salmon runs. Almost 130 years have passed, and those two fish agencies continue to pursue their mandates—as the National Marine Fisheries Service and the California Department of Fish and Game—to protect the fisheries resources and serve the economic, scientific and recreational needs of the American people. Yet, the Wintu now struggle for federal recognition of their very existence. Perhaps it is time to repay the debt.

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