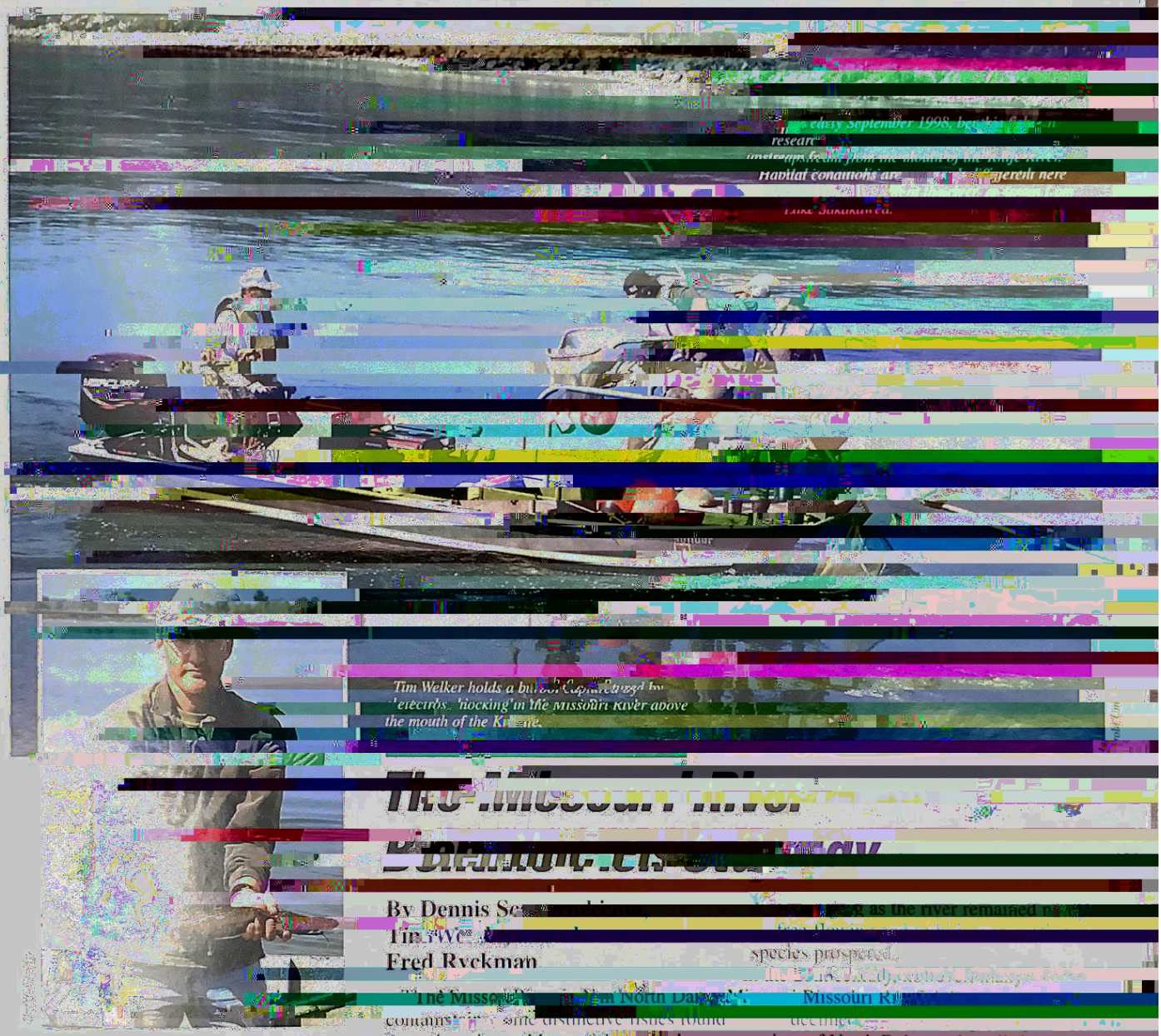


Tim Welker holds a bullhead captured by electrofishing in the Missouri River above the mouth of the Kansas.

Learning to Live with the Mighty Mo'

By Dennis Sc…
Tim We…
Fred Ryckman

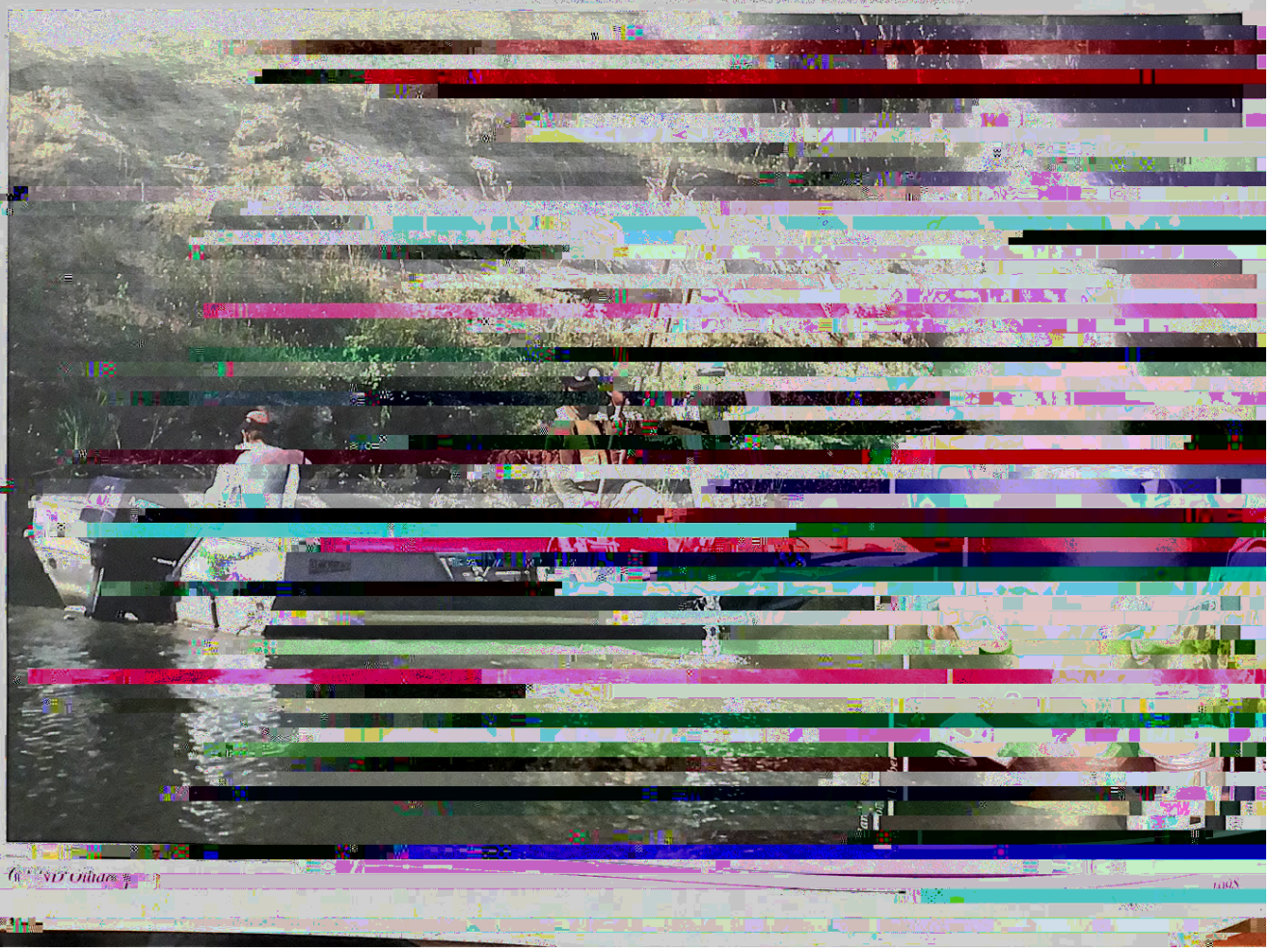
The Missou… from North Dako… contains … distinctive fishes found few other places. Many of … fish … specialized adaptations for … on or near the bottom and feeding in turbid waters.

… that help these fish … and taste for … race the heads of catfish, sturgeon, and … other benthic … bids cover the head, bodies … several species. … ds, channel catfish, sicklefin chubs and sturgeon chubs have small eyes … and more on taste for feeding th… many … clearer …

These special adaptations may seem strange to us … rely so heavily on sight for feeding, but to a Missouri … they may make good sen…

… as the river remained … species prospered. … Missouri R… river of North Dakota where little natural free-flowing river remains. Channelization – … streams … rivers … such … waters and … side chan…

… been eliminated … dams since the 1930s, from Fort Peck Dam in Montana to Gavins Point Dam on the South Dakota-Nebraska … sediment loads in the rivers … vors headwaters, changed the river's flow … temperature r… time below the dams, and caused significant daily …



[illegible] to Lake Sakakawea [illegible] the free-flowing, turbid waters of the unimpounded Yellowstone River. This reach retains a flow regime, turbidity, and habitats similar to those found before 20th [illegible]. In contrast, the Garrison Reach, which extends from Garris[illegible] to the Lake [illegible] by Lake Sakakawea. Because water is of[illegible] from the deepest portion of the reservoir, Garrison Reach water is ty[illegible] much colder and clear[illegible] the Williston Reach in summer.

The main fish speci[illegible] these two reaches are strikingly different. In 1997 1,500 fish, representing 30 [illegible] 11 families, were samp[illegible] Williston Reach. Mo[illegible] sampled fish (1,125 [illegible] or 75 percent) were benthic fish targeted for the study [illegible] chubs, w[illegible] silv[illegible] minnows, bigmouth buffalo and channel catfish were most commonly captured. Other native species s[illegible] regularly in the Williston Reach [illegible] include [illegible] sturgeon, burbot, [illegible] chub and [illegible] was [illegible] sampled. These are [illegible] distinctive, benthic species early explorers would have seen had they been able to sample the river.

[illegible] sampled in the Garrison Reach in 1997 represented only [illegible] white suckers and longnose suckers, and [illegible] less than 35 percent of the catch was targeted benthic fish. Almost none of the [illegible] Williston [illegible] were found in the Garrison Reach. Results indicate that changes in discharge, sediment and other [illegible] in the Garrison Reach. Similar loss of native fishes is documented at several [illegible] where [illegible] habitats [illegible] altered.

This study, which continues through 1999, promises to provide information on North Dakota's portion of river [illegible] the Missouri River upstream and downstream, [illegible] up on the Mighty [illegible] ing an im[illegible] uniform, comparable [illegible] basin-wide profile of native Missouri River benthic fish and their habitats.

DENNIS SCARNECCHIA and TIM [illegible] graduate [illegible] at the University of Idaho, Moscow, Idaho. FRED RYCKMAN is district [illegible] Game and Fish Department in Williston.

[illegible] toward Trenton Lake near Williston a[illegible] Lake Sakakawea. This portion of [illegible] similar to those found before 20th [illegible] river development. Two native fish [illegible]

[illegible] captured near the confluence of the Yellowstone [illegible]