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Iowa Conservation Commission

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A PRELIMINARY REPORT ON A CHECK-LIST OF IOWA TELEOSTS

W. W. AITKEN

In 1927, George E. Potter and David T. Jones recorded in volumes, thirty-four proceedings of the Iowa Academy of Science, a compilation and revision of the fish records published for Iowa.

In this article all of the available published records for Iowa fish were brought together, and species lists, with locality records and bibliography were recorded together with the tracing of any synonymy through all the sources; some interpretations were made.

The Potter and Jones list presented one hundred and twenty-seven recognized species with a hypothetical list including twenty-one species and sub-species.

This list has been of appreciable benefit to students of Ichthyology. However, from this point it seems desirable to here record the 1936 list of Iowa fishes as shown in the writer's report in May of the above year, with the subsequent additions to date as a basis for the monograph to be published upon the completion of the state-wide survey now in progress.

When the Extension Circular 224, "Some Common Iowa Fishes," Aitken 1936, was published, included was a list of native fishes known from Iowa. This list was the Potter and Jones list revised and brought up to date by Dr. C. L. Hubbs, which included new species from Iowa resulting from his partial survey of Iowa in 1932, and one additional species by the writer from his 1935 survey, which made a total of one hundred and thirty-one species for the state in 1936.

Not included in the above mentioned bulletin, was a new hypothetical list by Dr. Hubbs containing thirty-one fishes which might be discovered in Iowa.

Since the Mississippi Common Shiner (*Notropis cornutus chryscephalus* (Raf.) was in the Iowa survey collection, it was taken from the Hubbs hypothetical list and listed with the "known" fish in the 1936 paper.

In 1936, the writer found the Plains Silver Minnow (*Hybognathus placitus* (Girard) fairly abundant in collections in the

Missouri River, and in 1938 several Pirate Perch (*Aphredoderus sayanus*, Gilliams) were taken at the mouth of a small tributary of the Mississippi River in Allamakee County by State Fisheries Crews from the Lansing Station.

A classification by C. E. Wilson in 1939 of the Shimek collections in the State University Museums, revealed the Southern Log Perch (*Percina caprodes caprodes*, Raf.). Almost simultaneously with this report was the appearance of a number of these fish in our collections from the Cedar River at Cedar Rapids.

Mr. Wilson also recorded the Mississippi Long-eared Sunfish (*Xenotis megalotis megalotis*, Raf.) from the University Museum collections.

The present list of known fishes now includes one hundred and thirty-five species, with twenty-six on the hypothetical list.

LIST OF NATIVE FISHES KNOWN FROM IOWA

<i>Common Name</i>	<i>Scientific Name</i>
1. Western Silver Lamprey	<i>Ichthyomyzon castaneus</i> Girard
2. American Brook Lamprey	<i>Entosphenus appendix</i> (DeKay)
3. Paddlefish	<i>Polyodon spathula</i> (Walbaum)
4. Rock Sturgeon	<i>Acipenser fulvescens</i> Rafinesque
5. Shovel-nosed Sturgeon	<i>Scaphirhynchus platyrhynchus</i> (Rafinesque)
6. White Sturgeon	<i>Parascaphirhynchus albus</i> Forbes and Richardson
7. Short-nosed Gar	<i>Lepisosteus platostomus</i> Rafinesque
8. Long-nosed Gar	<i>Lepisosteus ossus</i> (Linnaeus)
9. Dogfish	<i>Amia calva</i> Linnaeus
10. Mooneye	<i>Hiodon tergisus</i> LeSueur
11. Goldeye	<i>Amphiodon alosoides</i> Rafinesque
12. Skipjack	<i>Pomolobus chrysochloris</i> Rafinesque
13. Ohio Shad	<i>Alosa ohioensis</i> Evermann
14. Gizzard Shad	<i>Dorosoma cepedianum</i> (LeSueur)
15. Brook Trout	<i>Salvelinus fontinalis</i> (Mitchill)
16. Big-mouthed Buffalo	<i>Megastomatobus cyprinella</i> (Cuvier and Valenciennes)
17. Black Buffalo	<i>Ictiobus niger</i> (Rafinesque)
18. Small-mouthed Buffalo	<i>Ictiobus bubalus</i> (Rafinesque)
19. Quillback	<i>Carpiodes cyprinus</i> (LeSueur)
20. River Carpsucker	<i>Carpiodes carpio</i> (Rafinesque)
21. Blunt-nosed Carpsucker	<i>Carpiodes velifer</i> (Rafinesque)
22. Blue Sucker	<i>Cycleptus elongatus</i> (LeSueur)
23. Common Sucker	<i>Catostomus commersonnii commersonnii</i> Lacepede
24. Hog Molly	<i>Hypentelium nigricans</i> (LeSueur)
25. Chub Sucker	<i>Erimyzon</i> sp.
26. Spotted Sucker	<i>Minytrema melanops</i> (Rafinesque)
27. Black Mullet	<i>Moxostoma duquesnii</i> (LeSueur)
28. Golden Mullet	<i>Moxostoma erythrurum</i> Rafinesque
29. Silver Mullet	<i>Moxostoma anisurum</i> Rafinesque
30. Northern Redhorse	<i>Moxostoma aureolum</i> (LeSueur)
31. River Redhorse	<i>Placopharynx carinatus</i> Cope
32. Lake Chub	<i>Couesius plumbeus</i> (Agassiz)
33. Horny-headed Chub	<i>Nocomis biguttatus</i> (Kirtland)
34. Plains Flat-headed Chub	<i>Platygobio gracilis communis</i> (Girard)
35. Spotted Chub	<i>Erimystax dissimilis</i> (Kirtland)
36. Silver Chub	<i>Hybopsis storerianus</i> (Kirtland)
37. Northern Longnose Chub	<i>Extrarius aestivalis hyostomus</i> (Gilbert)
38. Sickle-finned Chub	<i>Macrhybopsis meeki</i> (Jordan and Evermann)

39. Black-nosed Dace	<i>Rhinichthys atronasmus mclcagris</i> Agassiz
40. Long-nosed Dace	<i>Rhinichthys cataractae</i> (Cuvier and Valenciennes)
41. Northern Creek Chub	<i>Semotilus atromaculatus atromaculatus</i> (Mitchill)
42. Southern Red-bellied Dace	<i>Chrosomus erythrogaster</i> Rafinesque
43. Northern Common Shiner	<i>Notropis cornutus frontalis</i> (Agassiz)
44. Northern Red-finned Shiner	<i>Notropis umbratilus cyanoccephalus</i> (Copeland)
45. Emerald Shiner	<i>Notropis atherinoides</i> Rafinesque
46. Rosy Shiner	<i>Notropis rubellus</i> (Agassiz)
47. River Shiner	<i>Notropis blennioides</i> (Girard)
48. Northern Spot-tailed Shiner	<i>Notropis hudsonius hudsonius</i> (Clinton)
49. Northern Weed Shiner	<i>Notropis nux richardsoni</i> Hubbs and Greene
50. Big-eyed Shiner	<i>Notropis boops</i> Gilbert
51. Black-chinner Shiner	<i>Notropis heterodon</i> (Cope)
52. Northern Steel-colored Shiner	<i>Notropis whipplii spilopterus</i> (Cope)
53. Plains Red Shiner	<i>Notropis lutrensis</i> (Baird and Girard)
54. Central Big-mouthed Shiner	<i>Notropis dorsalis dorsalis</i> (Agassiz)
55. Central Sand Shiner	<i>Notropis deliciosus deliciosus</i> (Cope)
56. Plains Sand Shiner	<i>Notropis deliciosus missouriensis</i> (Cope)
57. Northern Sand Shiner	<i>Notropis deliciosus stramineus</i> (Cope)
58. Mimic Shiner	<i>Notropis volucellus volucellus</i> (Cope)
59. Channel Shiner	<i>Notropis volucellus wickliffi</i> Trautman
60. Ghost Shiner	<i>Notropis volucellus bucanani</i> Meek
61. Topeka Shiner	<i>Notropis topeka</i> Gilbert
62. Black-nosed Shiner	<i>Notropis heterolepis heterolepis</i> Eigenmann and Eigenmann
63. Pug-nosed Shiner	<i>Notropis anogenus</i> Forbes
64. Sucker-mouthed Minnow	<i>Phenacobius mirabilis</i> (Girard)
65. Western Golden Shiner	<i>Notemigonus crysoluceus auratus</i> (Rafinesque)
66. Ozark Minnow	<i>Dionda nubila</i> (Forbes)
67. Brassy Minnow	<i>Hybognathus hankinsoni</i> Hubbs
68. Mississippi Silver Minnow	<i>Hybognathus nuchalis</i> Agassiz
69. Plains Silver Minnow	<i>Hybonathus placitus</i> (Girard)
70. Bullhead Minnow	<i>Hypargyryus vclor</i> (Girard)
71. Blunt-nosed Minnow	<i>Hyborhynchus notatus</i> (Rafinesque)
72. Northern Fathead Minnow	<i>Pimephales promelas promelas</i> Rafinesque
73. Mississippi Stoneroller Minnow	<i>Camptostoma anomalum pullum</i> Agassiz
74. Channel Catfish	<i>Ictalurus punctatus</i> (Rafinesque)
75. Blue Catfish	<i>Ictalurus furcatus</i> (Cuvier and Valenciennes)
76. Northern Black Bullhead	<i>Ameiurus melas melas</i> (Rafinesque)
77. Northern Brown Bullhead	<i>Ameiurus nebulosus nebulosus</i> (LeSueur)
78. Northern Yellow Bullhead	<i>Ameiurus natalis natalis</i> (LeSueur)
79. Shovel-headed Catfish	<i>Pilodictis olivaris</i> (Rafinesque)
80. Stone Cat	<i>Noturus flavus</i> Rafinesque
81. Tadpole Madtom	<i>Schilbeodes gyrinus</i> (Mitchill)
82. Slender Madtom	<i>Schilbeodes exilis</i> (Nelson)
83. Brindled Madtom	<i>Schilbeodes miurus</i> (Jordan) (Doubtful)
84. Western Mud Minnow	<i>Umbra limi</i> (Kirtland)
85. Western Mud Pickerel	<i>Esox vermiculatus</i> LeSueur
86. Northern Pike	<i>Esox lucius linnaeus</i>
87. Tiger Muscalonge	<i>Esox masquinongy immaculatus</i> Garrard
88. American Eel	<i>Anguilla bostoniensis</i> (LeSueur)
89. Menona Banded Killifish	<i>Fundulus diaphanus menona</i> Jordan and Copeland
90. Plains Topminnow	<i>Fundulus sciadicus</i> Cope
91. Black-striped Topminnow	<i>Fundulus notatus</i> (Rafinesque)
92. Starheaded Topminnow	<i>Fundulus dispar</i> (Agassiz)
93. Brook Silverside	<i>Labidesthes sicculus</i> (Cope)
94. Trout-perch	<i>Percopsis omiscomaycus</i> (Walbaum)
95. Pirate Perch	<i>Aphredoderus sayanus</i> (Gilliams)
96. White Bass	<i>Lepibema chrysoptis</i> (Rafinesque)
97. Yellow Bass	<i>Morone interrupta</i> Gill
98. Yellow Perch	<i>Perca flavescens</i> (Mitchill)
99. Sauger	<i>Stizostedion canadense canadense</i> (Smith)
100. Yellow Pike-perch	<i>Stizostedion vitreum</i> (Mitchill)

101. Gilt Darter	<i>Hadropterus evides</i> (Jordan and Copeland)
102. Black-sided Darter	<i>Hadropterus maculatus</i> (Girard)
103. Longheaded Darter	<i>Hadropterus phoxocephalus</i> (Nelson)
104. Northern Log Perch	<i>Percina caprodes semifasciata</i> (DeKay)
105. Southern Log Perch	<i>Percina caprodes caprodes</i> (Rafinesque)
106. Channel Darter	<i>Imostoma shumardi</i> (Girard)
107. Sand Darter	<i>Ammocrypta pellucida</i> (Baird)
108. Crystal Darter	<i>Crystallaria asprella</i> (Jordan)
109. Western Johnny Darter	<i>Boleosoma niarum niarum</i> (Rafinesque)
110. Northern Banded Darter	<i>Poecilichthys zonalis zonalis</i> Cope
111. Rainbow Darter	<i>Poecilichthys coeruleus</i> Storer
112. Orange-throated Darter	<i>Poecilichthys spectabilis spectabilis</i> Agassiz
113. Mud Darter	<i>Poecilichthys jessiae</i> (Jordan and Brayton)
114. Iowa Darter	<i>Poecilichthys exilis</i> (Girard)
115. Striped Fan-tailed Darter	<i>Catonotus flabellaris lineolatus</i> Agassiz
116. Least Darter	<i>Microperca punctulata</i> Putnam
117. Northern Green-sided Darter	<i>Etheostoma blennioides blennioides</i> Rafinesque
118. Small-mouthed Bass	<i>Micropterus dolomieu</i> Lacepede
119. Large-mouthed Bass	<i>Aplites salmoides</i> (Rafinesque)
120. Warmouth Bass	<i>Chaenobryttus gulosus</i> (Cuvier and Valenciennes)
121. Green Sunfish	<i>Apomotis cyanellus</i> (Rafinesque)
122. Orange-spotted Sunfish	<i>Allotis humilis</i> (Girard)
123. Bluegill	<i>Helioperca macrochira</i> (Rafinesque)
124. Northern long-eared Sunfish	<i>Xenotis megalotis peltastes</i> (Cope)
125. Mississippi Long-eared Sunfish	<i>Xenotis megalotis megalotis</i> (Rafinesque)
126. Southern Sunfish	<i>Eupomotis microlophus</i> (Gunther)
127. Pumpkinseed	<i>Eupomotis gibbosus</i> (Linnaeus)
128. Rock Bass	<i>Ambloplites rupestris</i> (Rafinesque)
129. Black Crappie	<i>Pomoxis sparoides</i> (Lacepede)
130. White Crappie	<i>Pomoxis annularis</i> (Rafinesque)
131. Brook Stickleback	<i>Eucalia inconstans</i> (Agassiz)
132. Sheepshead	<i>Aplodinotus grunniens</i> Rafinesque
133. Northern Muddler	<i>Cottus bairdii bairdii</i> Girard
134. Slimy Muddler	<i>Cottus cognatus</i> Richardson
135. American Burbot	<i>Lota maculosa</i> (LeSueur)

HYPOTHETICAL LIST OF FISHES WHICH MAY BE DISCOVERED IN IOWA

1. Michigan Brook Lamprey	<i>Ichthyomyzon fossor</i> Reighard and Cummins
2. Alligator Gar	<i>Lepisosteus tristocchus</i> (Bloch and Schneider)
3. Tullibee	<i>Leucichthys artedi tullibee</i> (Richardson)
4. Slender Rivercarp	<i>Carpoides forbesi</i> , Hubbs (doubtful species)
5. Lake Chub-sucker	<i>Erimyzon succetta kennerlii</i> (Girard)
6. Creek Chub-sucker	<i>Erimyzon oblongus claviformis</i> (Girard) (which of these two species was the basis of Iowa records of " <i>Erimyzon succetta</i> ," perhaps both, can only be determined by re-examining the specimens)
7. Greater Redhorse	<i>Moxostoma rubreques</i> Hubbs
8. Big-eyed Chub	<i>Hybopsis amblops</i> (Rafinesque)
9. Northern Dace	<i>Margariscus margarita machtrjebi</i> (Cox)
10. Fine-scaled Dace	<i>Pfrille neogaea</i> (Cope)
11. Red-sided Dace	<i>Clinostomus elongatus</i> (Kirtland)
12. Northern Red-bellied Dace	<i>Chrosomus eos</i> Cope
13. Pugnosed Minnow	<i>Opsopoedus emiliae</i> Hay
14. Southern Weed Shiner	<i>Notropis nux nux</i> Evermann
15. Silver-striped Shiner	<i>Notropis illecebrosus</i> (Girard)
16. Southern Steel-colored Shiner	<i>Notropis whipplii whipplii</i> (Girard)
17. Silver-jawed Minnow	<i>Ericymba buccata</i> Cope
18. Freckled Madtom	<i>Schilbeodes nocturnus</i> (Jordan and Gilbert)
19. Long-nosed Madtom	<i>Schilbeodes eleutherus</i> (Jordan)
20. Springfish	<i>Forbesichthys papilliferus</i> (Forbes)
21. Dusky Darter	<i>Hadropterus scierus scierus</i> Swain

22. River Darter	<i>Cottogaster Copelandi</i> (Jordan)
23. Pug-nosed Darter	<i>Boleosoma camurum</i> Forbes
24. Lowland Darter	<i>Hololepis gracilis</i> (Girard)
25. Spotted Bass	<i>Micropterus pseudaplites</i> Hubbs
26. Red-spotted Sunfish	<i>Sclerotis punctatus miniatus</i> (Jordan)

The entire state has never been surveyed as a whole unit, which means that with the completion and report of the Iowa Fish Survey, there will likely be ten or fifteen fish taken from the hypothetical list and added to the known list.

The survey to date has produced several interesting facts, chief of which is the evident beneficial effect produced on fish environment by the elimination of city and industrial wastes attested by an increase in species and numbers of those fish less tolerant to pollution at points of previous heavy contamination.

Several albino fish have been collected. Outstanding is a 16-inch Channel Catfish (*Ictalurus punctatus*, Raf.) taken in the Missouri River near Sioux City in 1936.

The Iowa departmental fisheries crews have collected two other specimens of *I. punctatus* with characteristic albinism.

In 1934, Mr. E. B. Speaker, now Superintendent of Iowa Fisheries, collected an Albino Yellow Bass (*Morone interrupta* Gill) from Clear Lake. This fish was eleven and one-half inches long.

Hybridization is not uncommon in the present collections among the Sunfishes. We have also found cross-breeding in the Minnow group. One excellent example was taken from the Middle River in 1937 at the Pammel State Park — a cross between *Pimephales promelas* and *Hyborhynchus notatus*. The determination was made by Dr. Carl Hubbs.

One interesting teratological specimen was found in Cedar County in 1939. This fish has been pronounced as undoubtedly *Allotis humilis* (Girard).

With the growing interest in fisheries research in Iowa, it is hoped that this paper may be of benefit to the scientists as well as to the laymen. It will also have unquestioned merit in its adaptation to the fish management program of the State Conservation Commission.

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