
UNA LISTA DE LOS HIBRIDOS NATURALES DE PECES DEL MUNDO

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En vista del creciente interés por la hibridización, como factor importante en la evolución de los organismos vivientes, así como por su significación económica, hemos preparado la presente lista de peces híbridos del mundo, esperando resulte interesante para los investigadores en este campo.

Seguramente se encontrarán omisiones en una compilación de esta clase, por lo que se agradecería que se le señalaran al autor, para preparar en el futuro una lista final anotada de todos los híbridos, con descripción de sus características taxonómicas y biológicas.

La lista se presenta en el orden taxonómico habitual. Se anota el primer autor que reconoció la combinación para cada supuesto híbrido, aunque en algunos casos no se pudo seguir estrictamente esta regla por falta de datos primarios. Se anotan 212 híbridos pertenecientes a 23 familias. De ellos 134 se han encontrado en Norteamérica y 78 en Europa y Asia. Sólo unos 30 del total representan peces marinos o de aguas salobres.

El autor propone que los híbridos naturales, que se describieron anteriormente como especies distintas o como combinaciones híbridas, se designen con binomiales como las especies ordinarias, anteceditos del signo X, tal como se hace en botánica. Por ejemplo:

X *Notropis germanis* Hay (*Hybognathus hankinsoni* Hubbs x *Notropis heterolepis* Eigenmann and Eigenmann).

X *Abramis leuckarti* Heckel and Kner (*Rutilus rutilus* (L.) x *Abramis brama* (L.).).

Sin embargo, en el presente trabajo no se ha seguido dicho procedimiento, agradeciéndose de antemano los comentarios que puedan hacer las personas interesadas en estas cuestiones.

Se agradecen algunas referencias que fueron amablemente proporcionadas por el Dr. R. R. Miller.

I. Fam. Petromyzonidae

1. *Ichthyomyzon bdellium* (Jordan) X *Ichthyomyzon unicuspis* Hubbs and Trautman.

Descrp.: Hubbs and Trautman 1937. Ohio.*

2. *Ichthyomyzon castaneus* Girard X *Ichthyomyzon unicuspis* Hubbs and Trautman.

Descrp.: Hubbs and Trautman 1937. Michigan.*

* Estados de la Unión Americana.

II. Fam. Acipenseridae

1. *Huso dauricus* (Georgi) X *Acipenser schrencki* Brandt.

Descrp.: Berg. 1948. Amur River.

2. *Huso huso* (L.) X *Acipenser nudiventris* Lopetzky.

Descrp.: Berg 1911. Kura River.

3. *Huso huso* (L.) X *Acipenser güldenstädti* Brandt.

Descrp.: Berg 1948. Danube River, Caspian Sea.

4. *Huso huso* (L.) X *Acipenser stellatus* Pallas.

Descrp.: Danube, Volga and Ural rivers.

5. *Acipenser nudiventris* Lovetzky X *Acipenser güldenstädti* Brandt.

Descrp.: Berg 1911. Uraland Sefid-Rud rivers.

6. *Acipenser nudiventris* Lovetzky X *Acipenser stellatus* Pallas.

Descrp.: Berg 1911. Ura, Kura and Sefid-Rud rivers.

7. *Acipenser ruthenus* L. X *Acipenser güldenstädti* Brandt.

Descrp.: Berg 1911. Volga River.

8. *Acipenser ruthenus* L. X. *Acipenser stellatus* Pallas.

Descrp.: Berg 1911. Volga, Don and Danube rivers.

9. *Acipenser guldanstadti* Brandt X *Acipenser stellatus* Pallas.

Descrp.: Berg 1948. Caspian Sea.

10. *Acipenser baeri* Brandt X *Acipenser ruthenus n. marsigli* Brandt.

Descrp.: Berg 1911. Ob and Yenisei rivers.

11. *Pseudoscaphirhynchus kaufmanni* (Bogdanow) X *Pseudoscaphirhynchus hermanni* (Kessler).

Descrp.: Nikolskij 1938. Amu-Darya River.

III. Fam. Clupeidae

1. *Caspialosa kessleri* (Grimm) X *Caspialosa kessleri volgensis* (Berg).

Descrp.: Svetovidov 1943. Caspian Sea, Volga and Ural rivers.

2. *Alosa alosa* (L.) X *Alosa fallax* (Lacépède).

Descrp.: Redeke 1938. Rhine River.

IV. Fam. Salmonidae

1. *Salmo clarki* Richardson X *Salmo gairdneri* Richardson.

Descrp.: Leopold 1918, S.W.U.S.A.

2. *Salmo clarki henshawi* Gill and Jordan X *Salmo clarki lewisi* (Girard).

Descrp.: Miller and Alcorn 1943. Nevada.*

3. *Salmo clarki hensawi* Gill and Jordan X *Salmo gairdneri irideus* Gibbons.

Descrp.: Miller and Alcorn 1943. Nevada.*

4. *Salmo clarki lewisi* (Girard) X *Salmo gairdneri irideus* Gibbons.
Descrp.: Simon 1939. Wyoming.*
5. *Salmo clarki pleuriticus* Cope X *Salmo gairdneri irideus* Gibbons
Descrp.: Simon and Simon. 1942. Wyoming.*
6. *Salmo gairdneri* Richardson X *Salmo gilae* Miller.
Descrp.: Miller 1950. New Mexico.*
7. *Salmo gairdneri* Richardson X *Salvelinus fontinalis* (Mitchill).
Descrp.: Kendall 1919. New York.*
8. *Oncorhynchus gorbuscha* (Walbaum) X *Oncorhynchus keta* (Walbaum).
Descrp.: Hunter 1950. British Columbia (Canadá).
9. *Oncorhynchus kisutch* (Walbaum) X *Oncorhynchus tshawytscha* (Walbaum).
Descrp.: Banham and Seymour 1949. Washington.*

V. Fam. Coregonidae

1. *Leucichthys albula* (L.) X *Coregonus lavaretus marenoides* Poljakow
Descrp.: Tikhy 1930. Lake Cheremenezkoie, Gulf of Finland basin (introduced).
2. *Leucichthys autumnalis* (Pallas) X *Coregonus lavaretus pidschian n. jucagiricus* Drjagin.
Descrp: Drjagin 1936. Kolima River.
3. *Leucichthys autumnalis* (Pallas) X *Coregonus lavaretus pidschian n. bergiellus* Svetovidov.
Descrp . Svetovidov 1936. Sibirchi river, Kara Sea basin.
4. *Leucichthys autumnalis* (Pallas) X *Leucichthys sardinella* Valenciennes.
Descrp.: Burmakin 1941. Enisey River.
5. *Leucichthys autumnalis* (Pallas) X *Coregonus muksun* (Pallas).
Descrp.: Beresovsky 1924. Enisey and Kolima rivers.
6. *Leucichthys artedi* (Le Sueur) X *Coregonus clupeaformis* (Mitchill).
Descrp.: Koelz 1929. Ohio.*
7. *Leucichthys autumnalis* (Pallas) X *Coregonus lavaretus pidschanian n. pidschianoides* Pravdin.
Descrp.: Ostroumov 1948. Pechora River.
8. *Leucichthys peled* (Gmelin) X *Coregonus lavaretus pidschian n. pidschianoides* Pravdin.
Descrp.: Ostroumov 1948. Pechora River.
9. *Coregonus nasus* (Pallas) X *Coregonus lavaretus pidschian* (Gmelin).
Descrp.: Berg 1926. Lake Esey, Khatanga basin.

10. *Stenodus leucichthys mackenzie* (Richardson) X *Leucichthys autumnalis lauretteae* (Bean).

Descrp.: Dymond 1943. Mackenzie River (Canadá).

11. *Stenodus leucichthys nelma* (Pallas) X *Leucichthys autumnalis* (Pallas).

Descrp.: Kuznetsov 1932. Lena River.

12. *Stenodus leucichthys nelma* (Pallas) X *Coregonus muksun* (Pallas).

Descrp.: Kuznetsov 1932. Lena River.

VI. Fam. Thymallidae

1. *Thymallus brevirostris* Kessler X *Thymallus arcticus* (Pallas) ?

Descrp.: Berg 1948. Inland basins of the northwestern) Mongolia.

VII. Fam. Esocidae

1. *Esox americanus* Gmelin X *Esox niger* Le Sueur.

Descrp.: Weed 1927. Illinois.*

2. *Esox lucius* L. X *Esox niger* Le Sueur.

Descrp.: Embury 1918. New York.*

3. *Esox lucius* L. X *Esox masquinongy immaculatus* (Mitchill).

Descrp.: Eddy and Surber 1943. Minnesota.*

VIII. Fam. Characinidae

1. *Anoptichthys jordani* Hubbs and Innes X *Astyanax fasciatus mexicanus* (Filippi).

Descrp.: Breder 1943. México.

IX. Fam. Catostomidae

1. *Catostomus commersoni suckleyi* Girard X *Catostomus catostomus griseus* Girard.

Descrp.: Hubbs, Hubbs and Johnson 1943. Wyoming, Nebraska and Colorado.*

2. *Catostomus commersoni suckleyi* Girard X *Pantosteus jordani* Evermann.

Descrp.: Hubbs, Hubbs and Johnson 1943. South Dakota.*

3. *Catostomus commersoni suckleyi* Girard X *Pantosteus delphinus delphinus* (Cope).

Descrp.: Hubbs, Hubbs and Johnson 1943. Colorado.*

4. *Catostomus catostomus griseus* Girard X *Pantosteus jordani* Evermann.

Descrp.: Hubbs, Hubbs and Johnson 1943. Wyoming.*

5. *Catostomus columbianus columbianus* (Eigenmann and Eigenmann) X *Catostomus macrocheilus* Girard.

Descrp.: Hubbs, Hubbs and Johnson 1943. Washington and Oregon.*

6. *Catostomus columbianus palouseanus* X *Catostomus macrocheilus* Girard.

Descrp.: Hubbs, Hubbs and Johnson 1943. Washington.*

7. *Catostomus tahoensis* Gill and Jordan X *Pantosteus lahontan* Rutter.

Descrp.: Hubbs, Hubbs and Johnson 1943. Nevada and California.*

8. *Catostoma latipinnis* Baird and Girard X *Pantosteus delphinus utahensis* Tanner.

Descrp.: Hubbs, Hubbs and Johnson 1943. Utah, etc.*

9. *Catostomus latipinis* Baird and Girard X *Pantosteus delphinus delphinus* (Cope).

Descrp.: Hubbs 1947. Colorado.*

10. *Catostomus latipinis* Baird and Girard X *Xyrauchen texanus* (Abbott).

Descrp.: Hubbs and Miller 1953. Colorado and Utah.*

11. *Catostomus insignis* Baird and Girard X *Pantosteus clarki* Baird and Girard.

Descrp.: Hubbs, Hubbs and Johnson 1943. Arizona and New Mexico.*

12. *Catostomus insignis* Baird and Girard X *Xyrauchen texanus* (Abbott).

Descrp.: Hubbs and Miller 1953. Arizona.*

13. *Catostomus* sp. X *Pantosteus santaanae* Snyder.

Descrp.: Hubbs, Hubbs and Johnson 1943. California.*

14. *Catostomus* sp. X *Chamistes* sp.

Descrp.: Hubbs and Miller 1953. Colorado.*

X. Fam. Cyprinidae

1. *Rutilus rutilus* (L.) X *Abramis brama* (L.).

Descrp.: Berg 1912. Volga, Dnjeper, South Bug, Danube, Rhine, Oder and Vistula rivers.

2. *Rutilus rutilus caspicus* (Jakowlew) X *Abramis brama* (L.)

Descrp.: Berg. 1948. Volga River.

3. *Rutilus rutilus fluviatilis* (Jakowlew) X *Abramis brama* (L.).

Descrp.: Berg 1948. Volga River.

4. *Rutilus rutilus aralensis* Berg X *Abramis brama orientalis* Berg.

Descrp.: Berg 1948. Aral Sea.

5. *Rutilus rutilus* (L.) X *Blicca bjoerkna* (L.).

Descrp.: Berg 1912. Danube River.

6. *Rutilus rutilus caspicus* (Jakowlew) X *Blicca bjoerkna* (L.).
Descrp.: Berg 1948. Volga River.
7. *Rutilus rutilus heckeli* (Nordmann) X *Blicca bjoerkna* (L.)
Descrp.: Berg 1948. Rion River.
8. *Rutilus rutilus schelkownikowi* Derjawin X *Blicca bjoerkna transcaucasica* Berg.
Descrp.: Derjawin 1926. Karasu river.
9. *Rutilus rutilus fluviatilis* (Jakowlew) X *Leuciscus leuciscus* (L.).
Descrp.: Nikolyukin 1941. Kama river (Volga basin).
10. *Rutilus rutilus* (L.) X *Scardinius erythrophthalmus* (L.).
Descrp.: Berg 1912. Volga River.
11. *Rutilus rutilus aralensis* (Berg) X *Scardinius erythrophthalmus* (L.).
Descrp.: Gladkov 1934. Amu-Darya and Syr-Daria rivers.
12. *Rutilus rutilus* (L.) X *Alburnus alburnus* (L.).
Descrp.: Berg 1912. Volga and Danube rivers, Germany, Denmark and England.
13. *Rutilus rutilus aralensis* (Berg) X *Chalcalburnus chalcoides aralensis* (Berg).
Descrp.: Nikolskij 1935. Aral Sea.
14. *Leuciscus cephalus* (L.) X *Alburnus alburnus* (L.)
Descrp: Berg 1948. Danube River, England, Germany and Austria.
15. *Leuciscus cephalus* (L.) X *Chalcalburnus chalcoides mentoides* (Kessler).
Descrp.: Berg 1948. Salhig river (Krimia).
16. *Leuciscus cephalus* (L.) X *Chalcalburnus chalcoides danubicus* (Antipa).
Descrp.: Berg 1948, Kuban River.
17. *Leuciscus cephalus orientalis* (Nordman) X *Chalcalburnus chalcoides* (Güldenstadt).
Descrp: Berg 1910. Daghestan (Russia).
18. *Leuciscus cephalus orientalis* (Nordman) X *Chalcalburnus chalcoides schischkovi* Drenski.
Descrp.: Berg 1948. Kuban River.
19. *Leuciscus cephalus orientalis n. platycephalus* (Kamensky) X *Acanthalburnus punctulatus* (Kessler).
Descrp.: Berg 1912. Lake Chaldir (Arax river basin).
20. *Leuciscus idus* (L.) X *Aspius aspius* (L.).
Descrp.: Berg 1912. Volga River.
21. *Leuciscus idus oxianus* (Kessler) X *Aspius aspius taeniatus n. iblioides* (Kessler).
Descrp.: Berg 1905. Amu-Darya River.

22. *Leuciscus lehmanni* Brandt X *Alburnoides bipunctatus eichwaldi* (Filippi).
Descrp.: Berg 1948. Zeravshan river.
23. *Leuciscus leuciscus baicalensis n. kirgisorum* Berg X *Leuciscus idus oxianus* (Kessler) ?
Descrp.: Berg 1948. The ponds near-by Frunze.
24. *Phoxinus percnurus* (Pallas) X *Phoxinus czekanowski* Dybowski.
Descrp.: Drjagin 1933. Kolima River.
25. *Phoxinus czekanowski czerski* Berg X *Phoxinus lagowski oxicephalus* Berg.
Descrp.: Berg 1912. Lake Hanka.
26. *Scardinius erythrophthalmus* (L.) X *Alburnus alburnus* (L.).
Descrp.: Berg 1912. Dnjeper River, Germany and Poland.
27. *Scardinius erythrophthalmus* (L.) X *Blicca bjoerkna* (L.).
Descrp.: Berg 1912. Danube, Dnjeper and South Bug rivers, Germany, Switzerland, Sweden, Finland and Estonia.
28. *Gobio gobio carpathicus* Vladykov X *Gobio kessleri* Dybowski.
Descrp.: Vladykov 1931. Danube River.
29. *Varicorhinus capoeta heratensis* (Keyserling) X *Schizothorax pelzami* Kessler.
Descrp.: Starostin 1936, from Keltechinar.
30. *Barbus capito conocephalus* Kessler X *Barbus brachycephalus* Kessler.
Descrp.: Berg 1914. Chu River.
31. *Barbus capito conocephalus* Kessler X *Schizothorax pseudaksaiensis issykkuli* Berg.
Descrp.: Berg 1948 Chu River.
32. *Barbus capito conocephalus* Kessler X *Schizothorax intermedius* McClelland.
Descrp.: Hora 1935. Anderab river (India).
33. *Schizothorax labiatus* (McClelland) X *Oreinus sinuatus griffithi* McClelland.
Descrp.: Hora, 1934. Chitral (State of India).
34. *Chalcalburnus chalcoides* (Güldenstädt) X *Vimba vimba persa* (Gmelin).
Descrp.: Petrov 1926 Sefid Rud River.
35. *Alburnus charusini hohenackeri* Kessler X *Alburnus filippi* Kessler.
Descrp.: Petrov 1926. Sefid Rud and Kumbashinka rivers.
36. *Alburnus charusini hohenackeri n. persicus* Petrov X *Alburnoides bipunctatus eichwaldi* (Filippi).
Descrp.: Berg 1948. Sefid Rud River.
37. *Blicca bjoerkna* (L.) X *Abramis brama* (L.).

- Descrp.: Russki 1894. Volga River, West Europe.
38. *Blicca bjoerkna* (L.) X *Vimba vimba vimba n. carinata* (Pallas).
Descrp.: Beling, 1923. Dnjeper River.
39. *Blicca bjoerkna* (L.) X *Alburnus alburnus* (L.).
Descrp.: Berg 1933. Lake Ilmen, Germany.
40. *Rhodeus sericeus* (Pallas) X *Acanthorhodeus asmussi* (Dybowski) ?
Descrp.: Berg 1948. Lake Hanka.
41. *Cyprinus carpio* L. X *Carassius carassius* (L.).
Descrp.: Berg, 1948. Krimea, Poland and Germany.
42. *Cyprinus carpio* L. X *Carassius auratus gibelio* (Bloch) ?
Descrp.: Nikolskij, 1934. Aral Sea.
43. *Cyprinus carpio* L. X *Carassius auratus* (L.).
Descrp.: Hubbs, 1926. Lake Erie.
44. *Acrocheilus alutaceum* Agassiz and Pickering X *Ptychoeilus oregonense* (Richardson).
Descrp.: Hubbs and Schultz, 1931. Idaho.*
45. *Campostoma anomalum* (Rafinesque) X *Nocomis leptocephalus* Girard.
Descrp.: Raney, 1947. Virginia.*
46. *Campostoma anomalum* (Rafinesque) X *Rhinichthys cataractae* (Cuv. and Val.).
Descrp.: Greeley, 1938. New York.*
47. *Campostoma anomalum pullum* (Agassiz) X *Chrosomus erythrogaster* Rafinesque.
Descrp.: Hubbs and Bailey, 1952. Illinois, Iowa, Kansas and Oklahoma.*
48. *Campostoma anomalum plumbeum* (Girard) X *Chrosomus erythrogaster* Rafinesque.
Descrp.: Hubbs and Bailey, 1952. Kansas.*
49. *Ceratichthys perspicuus* (Girard) X *Ceratichthys vigilax* Baird and Girard.
Descrp.: Cross, 1950. Oklahoma.*
50. *Chrosomus eos* Cope X *Chrosomus neogaeus* Cope.
Descrp.: Greeley and Greene, 1931. New York.*
51. *Chrosomus erythrogaster* Rafinesque X *Chrosomus neogaeus* Cope.
Descrp.: Hubbs and Brown, 1929. Ontario (Canadá).
52. *Clinostomus elongatus* (Kirtland) X *Notropis cornutus cornutus* (Mitchill).
Descrp.: Greeley, 1938. New York.*
53. *Clinostomus elongatus* (Kirtland) X *Notropis cornutus frontalis* (Agassiz).

- Descrp.: Greene, 1935. Wisconsin.*
54. *Clinostomus elongatus* (Kirtland) X *Semotilus atromaculatus atromaculatus* (Mitchill).
Descrp.: Greene. 1935. Wisconsin.*
55. *Diond nubila* (Forbes) X *Notropis zonatus pilsbryi* Fowler.
Descrp.: Moore and Paden, 1950. Oklahoma.*
56. *Eremichthys acros* Hubbs and Miller X *Rhinichthys nubilus robustus* (Rutter).
Descrp.: Hubbs and Miller, 1948. Nevada.*
57. *Gila orcutti* (Eigenmann and Eigenmann) X *Siphateles mohavensis* Snyder.
Descrp.: Miller, 1938. California.*
58. *Hesperoleucus symmetricus subditus* Snyder X *Lavinia exilicauda harengus* Girard.
Descrp.: Miller, 1945. California.*
59. *Hybognathus hankinsoni* Hubbs X *Notropis deliciosus missuriensis* (Cope).
Descrp.: Hubbs and Breukelman, 1940. Kansas..*
60. *Hybognathus hankinsoni* Hubbs X *Notropis heterolepis* Eigenmann and Eigenmann.
Descrp.: Hubbs, 1951. Kansas.*
61. *Hybognathus nuchalis* Agassiz X *Notropis cornutus* (Mitchill).
Descrp.: O'Donnell, 1935. Illinois.*
62. *Hybognathus placita* Girard X *Notropis girardi* Hubbs and Ortenburger.
Descrp.: Cross, 1950. Oklahoma.*
63. *Hybopsis plumbea* (Agassiz) X *Rhinichthys cataractae* (Cuv. and Val.).
Descrp.: Simon, 1946. Wyoming.*
64. *Mylocheilus caurinum* (Richardson) X *Ptychocheilus oregonense* (Richardson).
Descrp.: Weisel, 1955. Montana.*
65. *Mylocheilus caurinum* (Richardson) X *Richardsonius balteatus balteatus* (Richardson).
Descrp.: Schultz and Schaefer, 1936. Oregon.*
66. *Nocomis biguttatus* (Kirtland) X *Notropis cornutus* (Mitchill).
Descrp.: O'Donnell, 1935 Illinois.*
67. *Nocomis micropogon* (Cope) X *Notropis cornutus* (Mitchill).
Descrp.: Raney, 1940. New York *
68. *Nocomis micropogon* (Cope) X *Notropis cornutus cornutus* (Mitchill).
Descrp.: Greeley, 1938. New York.*
69. *Nocomis micropogon* (Cope) X *Rhinichthys cataractae* (Cuv. and Val.).

- Descrp.: Raney, 1940a. Virginia.*
70. *Notropis cornutus* (Mitchill) X *Notropis rubellus* (Agassiz).
Descrp.: O'Donnell, 1935. Illinois.*
71. *Notropis cornutus* (Mitchill) X *Semotilus atromaculatus* (Mitchill).
Descrp.: Raney, 1940b. New York.*
72. *Notropis cornutus cornutus* (Mitchill) X *Notropis photogenis* (Cope).
Descrp.: Greeley, 1938. New York.*
73. *Notropis cornutus cornutus* (Mitchill) X *Notropis rubellus* (Agassiz).
Descrp.: Greeley, 1938. New York.*
74. *Notropis cornutus cornutus* (Mitchill) X *Semotilus atromaculatus atromaculatus* (Mitchill).
Descrp.: Greeley, 1938. New York.*
75. *Notropis cornutus cornutus* (Mitchill) X *Semotilus corporalis* (Mitchill).
Descrp.: Greeley, 1938. New York.*
76. *Notropis cornutus chrysocephalus* (Rafinesque) X *Notropis rubellus* (Agassiz).
Descrp.: Hubbs and Brown, 1929. Lake Erie drainage.
77. *Notropis cornutus (chrysocephalus x frontalis)* X *Notropis rubellus* (Agassiz).
Descrp.: Hubbs and Brown, 1929. Lake St. Clair and Lake Erie (Canadá).
78. *Notropis cornutus frontalis* (Agassiz) X *Notropis rubellus* (Agassiz).
Descrp.: Hubbs and Brown, 1929. Lake St. Clair and Lake Erie.
79. *Notropis cornutus frontalis* (Agassiz) X *Semotilus atromaculatus* (Mitchill).
Descrp.: Simon, 1946. Wyoming.*
80. *Notropis deliciosus missuriensis* (Cope) X *Notropis dorsalis piptolepis* (Cope).
Descrp.: Simon and Simon, 1942. Wyoming.*
81. *Notropis lutrensis* (Baird and Girard) X *Notropis venustus* (Girard).
Descrp.: Hubbs, Clark, 1951. Texas.*
82. *Notropis rubellus* (Agassiz) X *Notropis zonatus pilsbryi* Fowler.
Descrp.: Moore and Paden, 1950. Oklahoma.*
83. *Notropis lutrensis* (Baird and Girard) X *Notropis spilopterus* (Cope).
Descrp.: Thompson, 1935. Illinois.*
84. *Orthodon microlepidotus* (Ayres) X *Siphateles bicolor obesus* (Girard).
Descrp.: Miller 1952. Nevada.*
85. *Ptychocheilus oregonense* (Richardson) X *Richardsonius balteatus balteatus* (Richardson).

Descrp.: Weisel, 1955. Montana *

86. *Rhinichthys cataractae* (Valenciennes) X *Richardsonius balteatus balteatus* (Richardson).

Descrp.: Weisel, 1955. Montana.*

87. *Rhinichthys cataractae* (Valenciennes) X *Semotilus atromaculatus atromaculatus* (Mitchill).

Descrp.: Hubbs and Ortenburger, 1929. Oklahoma.*

88. *Rhinichthys nubilus carringtoni* (Cope) X *Richardsonius balteatus balteatus* (Richardson).

Descrp.: Schultz and Schaefer, 1936. Washington.*

89. *Rhinichthys nubilus carringtoni* (Cope) X *Richardsonius balteatus hydrophlox* (Cope).

Descrp.: Schultz and Schaefer, 1936. Washington.*

90. *Rhinichthys nubilus* subsp. X *Richardsonius egregius* (Girard).

Descrp.: Calhoun, 1940. California.*

91. *Richardsonius egregius* (Girard) X *Siphateles bicolor* (Girard).

Descrp.: Shapovalov, 1941. California.*

XI. Fam. Cobitidae

1. *Nemachilus strauchi ulacholicus* Anikin X *Nemachilus dorsalis* (Kessler)?

Descrp.: Berg 1948. Lake Issiq Kol (Centr. Asia).

XII. Fam. Ameiuridae

1. *Ictalurus punctatus* (Rafinesque) X *Pilodictis olivaris* (Rafinesque).

Descrp.: O'Donnell, 1935. Illinois.*

2. *Schilbeodes miurus* (Jordan) X *Schilbeodes mollis* (Hermann).

Descrp.: Trautman, 1948. Ohio.*

3. *Schilbeodes miurus* (Jordan) X *Schilbeodes nocturnus* (Jordan and Gilbert).

Descrp.: Cross and Moore 1952. Oklahoma.*

XIII. Fam. Gadidae

1. *Gadus callarias* L. X *Melanogrammus aeglefinus* (L.)

Descrp.: Dymond 1939. Atlantic ocean (Nova Scotia, Canadá).

XIV. Fam. Cyprinodontidae

1. *Ilyodon furcoidens* (Jordan and Gilbert) X *Ilyodon xantusi* Hubbs and Turner.

Descrp.: Hubbs and Turner, 1939. México.

2. *Chriopeops goodei* (Jordan) X *Lucania parva* (Baird and Girard).

Descrp.: Hubbs, Walker and Johnson, 1943. Florida.*

3. *Fundulus diaphanus diaphanus* (Le Sueur) X *Fundulus heteroclitus macrolepidotus*.

Descrp.: Hubbs, Walker and Johnson 1943. Gulf of St. Lawrence (Canadá).

4. *Fundulus kansae* (Garman) X *Fundulus sciadicus* Cope.

Descrp.: Hubbs, Walker and Johnson, 1943. Nebraska.*

XV. Fam. Poeciliidae

1. *Mollienesia sphenops* (Valenciennes) X *Mollienesia velifera* Regan.

Descrp.: Hubbs and Hubbs, 1932b. México, Texas.*

2. *Mollienesia sphenops altissima* Hubbs X *Mollienesia velifera* Regan.

Descrp.: Hubbs 1936. Yucatán (México).

XVI. Fam. Atherinidae

1. *Menidia menidia* (L.) X *Menidia beryllina* (Cope).

Descrp.: Florida.*

XVII. Fam. Centrarchidae

1. *Chaenobryttus coronarius* (Bartram) X *Lepomis auritus* (L.).

Descrp.: McAtee and Weed, 1915. Maryland.*

2. *Chaenobryttus coronarius* (Bartram) X *Lepomis cyanellus* Rafinesque.

Descrp.: Radcliffe, 1914. Washington.*

3. *Chaenobryttus coronarius* (Bartram) X *Lepomis gibbosus* (L.)

Descrp.: Radcliffe, 1914. Washington.

4. *Chaenobryttus coronarius* (Bartram) X *Lepomis macrochirus macrochirus* Rafinesque.

Descrp.: Hubbs, 1920. Illinois.*

5. *Chaenobryttus coronarius* (Bartram) X *Lepomis macrochirus purpurescens* (Cope).

Descrp.: Hubbs and Hubbs, 1933. Georgia and Alabama.*

6. *Lepomis auritus* (L.) X *Lepomis cyanellus* Rafinesque.

Descrp.: Raney, 1940c. Virginia.*

7. *Lepomis auritus* (L.) X *Lepomis gibbosus* (L.).

- Descrp.: Greeley and Bishop, 1933. New York.*
8. *Lepomis auritus* (L.) X *Lepomis macrochirus macrochirus* Rafinesque.
Descrp.: Bailey and Lagler, 1938. Alabama and New York.*
9. *Lepomis auritus* (L.) X *Lepomis macrochirus purpurescens* (Cope).
Descrp.: Bailey and Lagler, 1938. New York.*
10. *Lepomis cyanellus* Rafinesque X *Lepomis gibbosus* (L.).
Descrp.: Hubbs, 1920. Illinois.*
11. *Lepomis cyanellus* Rafinesque X *Lepomis humilis* (Girard).
Descrp.: Hubbs and Ortenburger, 1929. Oklahoma.*
12. *Lepomis cyanellus* Rafinesque X *Lepomis macrochirus* Rafinesque.
Descrp.: Hubbs and Hubbs, 1932a. Michigan.*
13. *Lepomis cyanellus* Rafinesque X *Lepomis macrochirus macrochirus* Rafinesque.
Descrp.: O'Donnell 1935. Illinois.*
14. *Lepomis cyanellus* Rafinesque X *Lepomis megalotis subsp.*
Descrp.: Cross and Moore, 1952. Oklahoma.*
15. *Lepomis cyanellus* Rafinesque X *Lepomis megalotis breviceps* (Baird and Girard).
Descrp.: Hubbs and Ortenburger, 1929. Oklahoma.*
16. *Lepomis cyanellus* Rafinesque X *Lepomis megalotis megalotis* (Rafinesque).
Descrp.: Hubbs and Hubbs, 1932a. Indiana.*
17. *Lepomis cyanellus* Rafinesque X *Lepomis megalotis peltastes* Cope.
Descrp.: Hubbs, 1926. Great Lakes region.
18. *Lepomis gibbosus* (L.) X *Lepomis humilis* (Girard).
Descrp.: O'Donnell, 1935. Illinois.*
19. *Lepomis gibbosus* (L.) X *Lepomis macrochirus* Rafinesque.
Descrp.: Greeley, 1937. New York.*
20. *Lepomis gibbosus* (L.) X *Lepomis macrochirus macrochirus* Rafinesque.
Descrp.: Hubbs, 1920. Michigan.*
21. *Lepomis gibbosus* (L.) X *Lepomis megalotis megalotis* (Rafinesque).
Descrp.: Hubbs and Hubbs, 1932a. Michigan.*
22. *Lepomis gibbosus* (L.) X *Lepomis megalotis peltastes* Cope.
Descrp.: Hubbs, 1926. Great Lakes region.
23. *Lepomis humilis* (Girard) X *Lepomis macrochirus macrochirus* Rafinesque.

Descrp.: O'Donnell, 1935. Illinois.*

24. *Lepomis humilis* (Girard) X *Lepomis megalotis* (Rafinesque).

Descrp.: O'Donnell, 1935. Illinois.*

25. *Lepomis macrochirus* Rafinesque X *Lepomis megalotis breviceps* (Baird and Girard).

Descrp.: Hubbs and Ortenburger, 1929. Oklahoma.*

26. *Lepomis macrochirus* Rafinesque X *Lepomis megalotis haplognathus* Cope.

Descrp.: Hubbs and Hubbs, 1933. Utah and Colorado.*

27. *Lepomis macrochirus macrochirus* Rafinesque X *Lepomis megalotis* (Rafinesque).

Descrp.: O'Donnell, 1935. Illinois.*

28. *Lepomis macrochirus macrochirus* Rafinesque X *Lepomis megalotis peltastes* Cope.

Descrp.: Hubbs and Hubbs, 1933. Michigan.*

29. *Lepomis macrochirus macrochirus* Rafinesque X *Lepomis microlophus* (Günther).

Descrp.: Moore and Paden, 1950. Oklahoma.*

30. *Lepomis macrochirus purpurescens* (Cope) X *Lepomis microlophus* (Günther).

Descrp.: Bailey and Lagler, 1938. Alabama.*

31. *Micropterus coosae* Hubbs and Bailey X *Micropterus punctulatus henshalli* Hubbs and Bailey.

Descrp.: Hubbs and Bailey, 1940. Alabama.*

32. *Micropterus dolomieu dolomieu* Lacépède X *Micropterus punctulatus punctulatus* (Rafinesque).

Descrp.: Hubbs and Bailey, 1940 Missouri and Alabama.*

33. *Micropterus dolomieu (dolomieu x velox)* X *Micropterus punctulatus puntulatus* (Rafinesque).

Descrp.: Bailey and Hubbs. 1949. Arkansas.*

34. *Pomoxis annularis* Rafinesque X *Pomoxis nigromaculatus* (Le Sueur).

Descrp.: Bailey and Lagler, 1938. Ohio and Illinois.*

XVIII. Fam. Chaetodontidae

1. *Holocanthus ciliaris* (L.) X *Holocanthus isabelita* Jordan and Rutter.

Descrp.: Longley, 1938. Bermuda ?

XIX. Fam. Percidae

1. *Perca fluviatilis* L. X *Acerina schraester* (L.).

Descrp.: Berg, 1948. Danube River.

2. *Stizostedion canadense canadense* (Smith) X *Stizostedion vitreum vitreum* (Mitchill).

Descrp.: Stroud, 1948. Tennessee.*

3. *Hadropterus copelandi* (Jordan) X *Percina caprodes* (Rafinesque).

Descrp.: Hubbs, 1926. Michigan.*

4. *Hadropterus maculatus* (Girard) X *Percina caprodes caprodes* (Rafinesque).

Descrp.: Greeley, 1938. New York.*

5. *Hadropterus maculatus* (Girard) X *Percina caprodes semifasciata* (DeKey).

Descrp.: Hubbs, 1926. Michigan,* Ontario (Canadá).

6. *Hadropterus shumardi* (Girard) X *Percina caprodes semifasciata* (DeKey).

Descrp.: Carlander, 1941. Minesota.*

7. *Etheostoma radiosum cyanorum* (Moore and Rigney) X *Etheostoma spectabile* (Agassiz).

Descrp.: Linder, 1955. Oklahoma.*

8. *Etheostoma spectabile* (Agassiz) X *Etheostoma whipplei* (Girard).

Descrp.: Linder, 1955. Oklahoma.*

XX. Fam. Acanthuridae

1. *Acanthurus achilles* Shaw X *Acanthurus glaucopareius* Cuvier.

Descrp.: Randal, 1956. Pacific Ocean (Phoenix Islands).

XXI. Fam. Cybiidae

1. *Scomberomorus cavalla* (Cuvier) X *Scomberomorus maculatus* (Mitchill).

Descrp.: de Sylva Donald, 1954. Florida.*

XXII. Fam. Bothidae

1. *Scophthalmus maximus* (L.) X *Scophthalmus rhombus* (L.).

Descrp.: Holt, 1895. Atlantic Ocean. Mediterranean Sea.

XXIII. Fam. Pleuronectidae

1. *Pleuronectes platessa* L. X *Scophthalmus maximus* (L.).

Descrp.: Krause, 1881. Baltic Sea.

2. *Pleuronectes platessa* L. X *Platichthys flesus* (L.).

Descrp.: Norman, 1934. Baltic Sea and Cattegat.

3. *Pleuronectes platessa* L. X *Limanda limanda* (L.).

Descrp.: Dunker, 1892. Baltic Sea.

4. *Pleuronectes platessa* L. X *Glyptocephalus cynoglossus* (L.).

Descrp.: Lönnberg, 1894. Cattegat.

5. *Platichthys bicoloratus* (Basilewky) X *Platichthys stellatus* (Pallas).

Descrp.: Hubbs and Kuronuma, 1942. Japanese waters.

6. *Parophrys vetulus* Girard X *Platichthys stellatus* (Pallas).

Descrp.: Norman, 1934. Washington.*

7. *Lepidopsetta bilineata* (Ayres) X *Platichthys stellatus* (Pallas).

Descrp.: Norman, 1934. Washington.*

8. *Limanda limanda* (L.) X *Platichthys flesus* (L.).

Descrp.: Day, 1885. Brixham (England).

9. *Pseudopleuronectes americanus* (Walbaum) X *Limanda ferruginea* (Storer).

Descrp.: Nichols, 1918. Atlantic ocean (New York).

REFERENCIAS

- BAILEY, R. M., y C. L. HUBBS. 1949. The black basses (Micropterus) of Florida, with description of a new species. *Ocass. Pap. Mus. Zool.*, 516: 1-40. 2 pls
- y LAGLER, K. F. 1938. An analysis of hybridization in a population of stunted sunfishes in New York. *Pap. Mich. Acad. Sci. Arts, Letters*, 23 (1937): 577-604, figs. 1-5.
- BELING, D. E. 1923. "Laskirnij ribez" dnipro. *Naukovi zap.*, II: 1622, fig. (text in Ukrainian) Kiev.
- BERESOVSKY, A. I. 1924. Coregonid fishes of the Enisey River. *Rep. of the Laboratory ichthyological in Siberia*, v. II, I: 79-95.
- BERG, L. S. 1905. The fishes of the Turkestan. *Bull. Turk. bur, Russ. geogr. Soc.* IV: XVI-261. 6 tables.
- 1910. Rapport sur une mission Zoologique au Caucase en 1909. *Ann Mus. Zool. Ac. Sc.*, XV: 0153-0170.
- 1911, 1912 y 1914. Faune de la Russie (Poissons) 1911 (Marsipobranchii, Selachii, Chondrostei). *Mus. Zool. Ac. Sc.* v. I: III 337. 8 tabs; 912 (Ostariophysi) v. III. 1: 1-336. 2 tabs. *ibid.*; 1914, 2: 337-704. 4 tabs.
- 1926. The fishes of the Khatanga river basin. *Mat. Res. Commiss. Yakut. Rep.*, 2: 1-14 (russ. summary: 15-22), 2 tabs.
- 1933. Fishes. Marsipobranchii and Pisces. III. 3: "Fauna USSR". *Akad USSR*: 705-846.
- 1948 y 1949. Fishes of the fresh-waters of the USSR. 1948. part I: 1-466. 281 figs.; 1949, part II: 470-925, figs. 288-674; part III: 930-1274. figs. 675-945 with refer., map. 1.
- BONHAM, K., y SEYMOUR, A. 1949. Hybrid of chinook and silver salmon from Puget Sound. *Copeia*, I: p. 69.
- BREDER, C. M., JR. 1943. Apparent changes in phenotypic ratios of the Characins at the type locality of *Anotichthys jordani* Hubbs and Innes. *Copeia*. I: 26 - 30.
- BURMAKIN, E. V. 1941. *Trud. Inst. poliarn. zemled.*, ser. prom. hoz., 16: 115-119 (in Berg, 1948).

- CALHOUN, A. 1940. Note on a hybrid minnow. Apocope X Richardsonius. Copeia, 2: 142-143.
- CARLANDER, K. D. 1941. The darters (Etheostominae) of Minneosta. Proc. Minn Acad. Sci., 9: 41-48.
- CROSS, F. B. 1950. Effects of sewage and of a headwaters impoundment on the fishes of Stillwater Creek in Payne County, Oklahoma. Amer. Midl. Nat., 43: 128-145, fig. 1.
- y MOORE, G. A. 1952. The fishes of the Poteau River, Oklahoma and Arkansas. Amer. Midland Nat., 47 (2): 396-412.
- DAY, F. 1885. On a supposed hybrid between the dab (*Pleuronectes limanda*) and the flounder (*P. flesus*). Proc. Zool. Soc. London, pp. 929-930. pl. 62.
- DE SYLVA, DONALD. 1954. Occurrence of an apparent hybrid mackerel (*Scomberomorus*) of Miami. Florida, Copeia. 3: 231.
- DERJAWIN, A. N. 1926. Fishes of the Karasu river. Bull. Bakinsk. ichthyol. Lab., II, I: 161-182 (text in Russian).
- DRJAGIN, P. A. 1933. Ribn. resursi Yakutti. Trud. Sov. po izuch. proizv. sil. Yakutsk. A.S.S.R., 5: 3-94. Akad. Nauk. U.S.S.R.
- 1936. Coregonus fish hybrids of the Kolima River. Transac. Zool. Inst. Akad. Nauk. U.S.S.R., III: 443-454.
- DUNKER. G. 1892. Ein muthmasslicher Bastard zwischen *Pleuronectes platessa* L. and *Pl. limanda* L. Zool. Anz., XV: 451-453.
- DYMOND. J. R. 1939. Cod X Haddock hybrids? Can. Field-Nat. Sept. p. 91
- 1943. The Coregonine fishes of Northwestern Canada. Trans. Royal. Can Inst. v. XXIV, part II, pp. 171-231.
- EDDY, S., y SURBER, TH. 1943. Northern Fishes. Univ. Minn. pp. 242, figs. 57.
- EMBODY, G. C. 1918. Artificial hybrids between pike and pickerel. Journ. of Heredity, 9, 6: 253 - 256, figs. 4-5.
- GLADKOV, N. A. 1934. Ribohoz. obsl. Kamishlibashskih ozer. Trud. Aralsk. otd. Inst. morsk. ribn. hoz., III: 101-146 (text in Russian).
- GOSLINE, W. A. 1948. Speciation in the fishes of the genus *Menidia*. Evol. II. 4: 306-313.
- GREELEY, J. R. 1937. Fishes of the area with annotated list in: Biol. Surv. Lower Hudson Watershed. XI. Suppl. 26. Ann. Rep. State of N. Y. Cons. Dept. (1936): 45-104.
- 1938. Fishes of the area with annotated list in: A Biological Survey of the Allegheny and Chemung Watersheds. XII. Suppl. 27th. Ann. Rept. N. Y. Cons. Dep., 1937: 48-73.
- y BISHOP, S. C. 1933. Fishes of the Upper Hudson watershed with annotated list in: A Biol. Surv. Upper Hudson Watershed, VII. Suppl. Suppl. 22. Ann. Rep. State of N. Y. Cons. Dept. (1932): 64-101.
- y GREENE, C. W. 1931. Fishes of the area with annotated list in: Biol Surv. St. Lawrence Watershed. V. Suppl. 20. Ann. Rep. N. Y. Cons. Dep., 1930: 44 - 94.
- GREENE, C. W. 1935. The distribution of Wisconsin fishes. State of Wisconsin Conservation Commission Madison: 1-235, maps 1-96.
- HOLT, E. W. L. 1895. Note on some supposed hybrids between the turbot and the brill. Journ. Mar. Biol. Assoc., II: 292-299. figs.
- HORA, S. L. 1934. The fishes of Chitral. Rec. of the Indian Mus. v. XXXVI: 279-318, pls. III and IV.
- 1935. On a collection of fish from Afganistan. Journ. of the Bombay Nat. Hist. Society. v. XXXVII. 4.
- HUBBS, C. L. 1920. Notes on hybrid sunfishes. Aquatic Life, v. V, 9: 101-103.

- 1926. A check-list of the fishes of the Great Lakes and Tributary waters. with nomenclatorial notes and analytical keys. Univ. Mich. Mus. Zool., 15: 1-77. pls. I-IV.
- 1936. Fishes of the Yucatan Peninsula. Carnegie Inst. Wash. Publ., 457: 157-287, fig. 1. pls. 1-15.
- 1951. The American cyprinid fish *Notropis germanus* Hay interpreted as an intergeneric hybrid. Amer. Midl. Nat., 45: 446-454.
- y BROWN, D. E. S. 1929. Materials for a distributional study of Ontario fishes. Trans. Roy. Can. Inst., 17: 1-56.
- y ORTENBURGER, A. I. 1929. Further notes on the fishes of Oklahoma with distributions of new species of Cyprinidae. Univ. Okla. Biol. Surv. v. 1, 2: 17-43.
- y SCHULTZ, L. P. 1931. The scientific name of the Columbia River chub. Univ. Mich., Mus. Zool., Occ. Pap., 232: 1-6.
- y HUBBS, L. C. 1932a. Experimental verification of natural Hybridization between distinct genera of sunfishes. Pap. Mich. Acad. Sci., Arts. Letters. 15 (1931): 427-437.
- 1932b. Apparent parthenogenesis in nature, in a form of fish of hybrid origin. Science. 76: 628 - 630.
- 1933. The increased growth, predominant maleness, and apparent infertility of hybrid sunfishes. Pap. Mich. Ac. Sci. Arts, Letters. XVII (1932): 613-641. pls. LXIV-LXV.
- y TRAUTMAN, M. B. 1937. A revision of the lamprey genus *Ichthyomyzon*. Disc. Publ. Mus. Zool. Univ. Mich., 35: 1-109. figs. 1-5. map 1. pls. 1-2.
- y TURNER, C. L. 1939. Studies of the fishes of the order Cyprinodontes. XVI. A revision of the Goodeidae. Misc. Publ. Mus. Zool. Univ. Mich., 42: 1-80, pls. 1-5.
- in BREUKELMAN, J. 1940. The fishes of Northwestern Kansas. Trans. Kansas Acad. Sci., 43: 367 - 375. 1 map.
- y BAILEY, R. M. 1940. A revision of the black basses (*Micropterus* and *Huro*), with descriptions of four new-forms. Misc. Publ. Mus. Zool. Univ. Mich., 48: 1 -51. fig. 1 . pls. 1-6, maps 1 -2.
- y KURONUMA, K. 1942. Hybridization in nature between two genera of flounders in Japan. Pap. Mich. Ac. Sc., Arts. Letters, v. XXVII (1941): 267-306. figs. 1-5. pls. 1-4.
- HUBBS, L. C., y JONSON, R. E. 1943. Hybridization in nature between species of catostomid fishes. Contr. Lab. Vert. Biol. Univ. Mich., 22: 1-76, figs. 1-8. pls. 1-7 (with references to key papers on cyprinid hybrids).
- WALKER, B. y JOHNSON, R. 1943. Hybridization in Nature between species of American cyprinodont fishes. Contr. Lab. Vert. Biol. Univ. Mich., 23: 1-21. pls. 1-6.
- y HUBBS, L. C. 1947. Natural hybrids between two species of catostomid fishes. Pap. Mich. Acad., Sci., Arts, Letters. 31 (1945): 147-167, figs. 1-2.
- y MILLER, R. R. 1948. Two new relict genera of cyprinid fishes from Nevada. Univ. Mich.. Mus. Zool., Occ. Pap.. 507: 1 -30, pls. I-III.
- 1951. Observations on the breeding of *Dionda episcopa serena* in the Nueces River. Texas. The Texas Journal of Science. 3: 490-492.
- y BAILEY, R. M. 1952 Identification of *Oxygenum pulverulentum* Forbes. from Illinois as a hybrid cyprinid fish. Pap. Mich. Acad. Sci., Arts. Letters, 37 (1951): 143-152. pl. 1.
- y MILLER, R. 1953. Hybridization in nature between the fish genera *Catostomus* and *Xyrauchen*. Pap. Mich. Ac. Sc., Arts, Letters, 38 (1952): 207 - 233. figs. 1-3. pls. 1-4.
- HUNTER, J. G. 1950. Occurrence of hybrid salmon in the British Columbia commercial fishery. Fish. Res. Board. Canada. Progr. Rep., 81 (1949): 91-92.

- KENDALL, W. C. 1919. A hybrid salmonid. *Copeia*, 72: 61-63.
- KOELZ, W. 1929. Coregonid fishes of the Great Lakes. *Bull. U. S. Bur. Fish.*, 43 (1927). II: 297-643, figs. 1-31.
- KRAUSE, K. E. H. 1881. Ein Schollen-Bastard. *Platessa vulgaris* X *Rhombus maximus*. *Arch. Ver. Freunde Naturg. Mecklenburg*: 119- 120.
- KUZNETSOV, N. T. 1932. On some hybrids of the "nelma" and the *Coregonus*. *Trav. Cons. Explor. Res. Nat. U.R.S.S., Ser. Iakoute*. 3: 47-66.
- LEOPOLD, A. 1918. Mixing trout in western waters. *Trans. Amer. Fish. Soc.*, 47: 101-102.
- LINDER, A. D. 1955. The fishes of Blue River in Oklahoma with descriptions of two new percid hybrid combinations. *Amer. Midland Nat.*, 54 (1): 173.
- LONGLEY, W. 1938. Systematic catalog of the fishes of Tortugas, Florida. *Carnegie Inst. Wash. Publ.* 535: 1- 331.
- LÖNNBERG, A. J. E. 1894. Observations on certain flatfishes. *Oefvers Vet. Akad. För.*, 51: 571-588.
- McATEE, W. L., y WEED, A. C. 1915. First list of the fishes of the vicinity of Plummers Island Maryland. *Proc. Biol. Soc. Wash.* XXVIII (1914): 1-14.
- MILLER, R. R. 1938. Description of an isolated population of the fresh-water minnow *Siphateles mohavensis* from the Mohave River basin. *California. Pomona Coll. Journ. Entomol. and Zool.*, 30: 65-67.
- 1945. The status of *Lavinia ardesiaca*. a cyprinid fish from the Pajaro-Salinas River basin. *California. Copeia*. 4: 197-204.
- 1950. Notes on the cutthroat and rainbow bouts with the description of a new species from the Gila River, New Mexico. *Occ. Pap. Mus. Zool. Univ. Mich.*, 529: 1-42. pl.: 1.
- 1952. An annotated check-list of the fishes of Nevada. *Calif. Fish and Game* 38 (1): 113- 123.
- y ALCORN, J. R. 1943. The introduced fishes of Nevada, with a history of their introduction. *Trans. of Amer. Fish. Soc.*, 73: 173- 193.
- MOORE G., y PADEN J. 1950. The fishes of the Illinois River in Oklahoma and Arkansas. *The Amer. Midland Natur.*, v. 44, 1: 76-95.
- NICHOLS, J. T. 1918. An abnormal winter flounder and others. *Copeia*, 55 37-39.
- NIKOLSKIJ, G. V. 1934. Szan of Aral Sea *Trud. Aralsk Otd. Inst. morsk. ribn. hoz.*, III: 5 - 71. fig.
- 1935. Hybrid between *Chalcalburnus chalcoides aralensis* Berg and *Rutilus rutilus aralensis* Berg. *Sbornik Trud. Zool. Mus. Univ. of Moscow* (1934), 1: 113-115.
- NIKOLSKIJ, G. V. 1938. *Poissons de Tadjikistan. Acad. Sci. de l'U.R.S.S.*, v. VII: 9-217, 57 figs.
- NIKOLYUKIN, N. I. 1941. Über den künstlich erzeugten Bastard von *Rutilus rutilus* (Linne) X *Leuciscus danilewskii* (Kessler). *Zool. Anz.*, v. 133, 11-12; 277-285.
- NORMAN, J. R. 1934. A systematic monograph of the flatfishes (Heterosomata) v. I. *British Museum. London.* 459 pgs., figs. 1-137.
- O'DONNELL, D. J. 1935. Annotated list of the fishes of Illinois. *Bull. Ill. Nat. Hist. Surv.*, 20: 473-500. frontisp., figs. 1-2.
- OSTROUMOV, N. A. 1948. The fishes of middle and upper Pechora River. *C. R. Acad. Sci. U.R.S.S. (Doklady)* LIX. 8: 1497-1500.
- PETROV, V. V. 1926. Kpoz. kavkaskih ukleek (genus *Alburnus* Heck.). *Izw. Bakinsk. Ichth. lab.*, II. 1: 133-159.

- RADCLIFFE, L. 1914. A hybrid centrarchid. *Copeia*. 7: 2-4.
- RANDAL, J. 1956. *Acanthurus rackliffei* a possible hybrid surgeon fish (*A. achilles* X *A. glaucopareius*) from the Phoenix Islands. *Copeia*. 1, p. 21.
- RANEY, E. C. 1940a *Rhinichthys bowersi* from West Virginia a hybrid. *Rhinichthys cataractae* X *Nocomis micropogon*. *Ichthyol. notes Copeia* 4. 270-271.
- 1940b. The breeding behavior of the common shiner. *Notropis cornutus* (Mitch) *Zoologica*, 25, part I: 1-14, pls. I-IV.
- 1940c. Reproductive activities of a hybrid minnow *Notropis cornutus* X *Notropis rubellus*. *Zoologica*, v. XXV (part 3), Nov. 14, 361-367.
- 1947. *Nocomis* nests used by other breeding cyprinid fishes in Virginia. *Zoologica*, 32: 125- 131. pl. I.
- REDEKE, H. C. 1938. Über den Bastard *Clupea Alosa-finta* Hoek. *Arch. Neerland. Zool.*, III, Suppl.: 148-158.
- RUSSKI, M. D. 1894. *Pril. prot. obshch. Kazansk. Univ.*, 146 (in Berg. 1948).
- SHAPOVALOV, L. 1941. The fresh-water fish fauna of California. *Proc. Sixth Pacific Sc. Congress*. III: 441 - 446.
- SIMON, J. R. 1939. *Yellowstone Fishes*. *Yell. Lib. and Muss. Assoc. Yellowstone National Park Wyo.*
- y SIMON. F. 1942. Check list and keys of the fishes of Wyoming. *Univ. Of Wyo. Rev. Pub.* v. 6, 4
- 1946. Wyoming fishes. *Wyoming Game and Fish Dep., Bull.*, 4: pp. 124. 92 figs.
- SCHULZ, L., Y SCHAEFER, M. 1936. Descriptions of a new intergeneric hybrids between certain Cyprinid fishes of Northwestern United States. v, 49: 1 - 10.
- STAROSTIN, I.V. 1936. *Ichthyofauna rechk severn. sklona Kopetdaha*. *Bull. Turkm. Zool. St.*, 1: 77-97.
- STROUD, R. 1948. Notes on growth of hybrids between the Sauger and Walleye (*Stizostedion canadense canadense* X *St. vitreum vitreum*) in Norris Reservoir, Tennessee. *Copeia*. 4: 297-298.
- SVETOVIDOV, A. N. 1936. Sig rek Kari i Sibirchi (*Coregonus lavaretus pidschian natio bergiellus*). *Trav. Inst. Zool. Ac. Sci. U.R.S.S.*, IV. 2: 299-423.
- 1943. O kaspisk i chernomorsk, seldev. iz roda *Caspialosa* i *Clupeonella*. *Zool. Journ.*, 4: 222 - 232.
- THOMPSON, D. H. 1935. Hybridization and racial differentiation among Illinois fishes. *Bull. Nat. Hist. Surv.* 20 (5): 492-494.
- TIKHY, M. I. Modern state of pisciculture in the U.S.S.R. *Bull. Inst. Ichth.*, v. XI. F. 1: 3-51.
- TRAUTMAN, M. B. 1948. A natural hybrid catfish. *Schilbeodes miurus* X *Schilbeodes mollis*, *Copeia*, 3: 166-174. pl. I.
- VLADYKOV, V. 1931. *Poissons de la Russie sous-Carpathique*. *Tchecoslovaquie. Mem. Soc. Zool. France*. XXIX: 285-287.
- WEED, A. C. 1927. *Pisce, Pickerel and Muskalonge*. *Field Mus. Nat. Hist. Chicago*.
- WEISEL, G. F. 1955. Three new intergeneric hybrids of cyprinid fishes from Western Montana. *The American Midland Naturalist*, v. 53, 2:396-411.