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## Fishes of North America Endangered, Threatened, or of Special Concern: 1989

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### ABSTRACT

The American Fisheries Society herein provides an update of their now decade-old list of rare North American fishes. The 1989 list adds 139 new taxa to the list developed by Deacon et al. (1979) of 251 fishes and removes 26 for a total of 364 fishes in Canada, United States, and Mexico that warrant protection because of their rarity. The 26 taxa removed from the 1979 list include 16 removed because of better information on their taxonomy or status and 10 because they have become extinct. Not a single fish warranted removal from the list because of successful recovery efforts. In addition, 49 fishes have changed in status but remain on the list: 7 have improved in status, 24 have declined, and 18 have been reclassified because new information revealed that they were either more common or rarer than was earlier believed and, therefore, were incorrectly classified in 1979. Comparison of the 1979 and 1989 lists indicates that recovery efforts have been locally effective for some species, but are clearly lagging behind deterioration of the overall fish fauna. The health of aquatic habitats in North America continues to decay. A major commitment to conservation of entire ecosystems, rather than the inconsistent recovery efforts for individual species, is needed to reverse this trend.

### RESUMEN

La Sociedad Americana de Pesquerías proporciona aquí una revisión de su lista de los peces raros de Norteamérica publicado originalmente hace una década. La lista de 1989 adiciona 139 nuevos taxa a la lista proporcionada por Deacon et al. (1979) de 251 peces y elimina 26 para un total de 364 especies de peces en Canadá, Estados Unidos, y México que justifican su protección debido a su rareza. Los 26 taxa eliminados de la lista de 1979 incluyen 16 eliminados debido a que se ha obtenido una mejor información sobre su taxonomía y situación actual y 10 debido a su reciente extinción. Ni un pez mereció eliminación de la lista debido a un esfuerzo de recuperación exitoso. En adición, 49 especies de peces han cambiado en su situación pero permanecen en la lista: 7 han mejorado su situación, 24 han declinado, y 18 han sido reclasificados debido a que la reciente información obtenida revela que fueron más comunes o más raros que lo que se pensaba antes y por lo tanto fueron incorrectamente clasificados en 1979. Comparaciones entre las listas de 1979 y 1989 indican que los esfuerzos de recuperación han sido efectivos solo localmente para algunas especies, pero que están claramente rezagados en tiempo por el deterioro de toda la fauna de peces en general. La salud de los hábitats acuáticos en Norteamérica continua decayendo. Un compromiso mayor para la conservación de ecosistemas enteros, en vez de esfuerzos inconsistentes de recuperación para especies individuales se requiere para cambiar esta tendencia.

In 1979, the American Fisheries Society published a list of rare fishes of North America (Deacon et al. 1979). Since then, many other lists of endangered fishes have appeared including Ono et al. (1983), Campbell (1984, 1985, 1987), Williams et al. (1985), and Johnson (1987), as well as many unpublished, but much utilized, state agency lists. For the most part, these lists are restricted to smaller geographic areas or, in the case of Johnson (1987), to fishes

that receive legal protection from states. This article provides an update of the now decade-old compilation of Deacon et al. (1979) on the status of rare North American fishes. Our purposes are to: (1) provide an up-to-date and comprehensive list of endangered, threatened, and of special concern fishes of the North American continent, and (2) analyze changes in the status of native fishes during the last decade.

While lists such as this serve as valuable indicators of the health of aquatic ecosystems, they also demonstrate the extent of actual recovery work confronting us. This list and others hopefully serve as guides for prioritizing recovery efforts in order to maximize results with limited staff, time, and funds. Other applications abound. Comparisons of this with other lists may prove fruitful. For example, a simple subtraction of those fishes already receiving legal protection (Johnson 1987) from the present compilation yields those

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