

## **Ichthyophthiriasis in Farmed Fishes in Iraq**

Authors: Khalifa, K. A., Al-Khayat, K. M., and Al-Rijab, F. H.

Source: Journal of Wildlife Diseases, 19(2) : 145

Published By: Wildlife Disease Association

URL: <https://doi.org/10.7589/0090-3558-19.2.145>

---

The BioOne Digital Library (<https://bioone.org/>) provides worldwide distribution for more than 580 journals and eBooks from BioOne's community of over 150 nonprofit societies, research institutions, and university presses in the biological, ecological, and environmental sciences. The BioOne Digital Library encompasses the flagship aggregation BioOne Complete (<https://bioone.org/subscribe>), the BioOne Complete Archive (<https://bioone.org/archive>), and the BioOne eBooks program offerings ESA eBook Collection (<https://bioone.org/esa-ebooks>) and CSIRO Publishing BioSelect Collection (<https://bioone.org/csiro-ebooks>).

Your use of this PDF, the BioOne Digital Library, and all posted and associated content indicates your acceptance of BioOne's Terms of Use, available at [www.bioone.org/terms-of-use](http://www.bioone.org/terms-of-use).

Usage of BioOne Digital Library content is strictly limited to personal, educational, and non-commercial use. Commercial inquiries or rights and permissions requests should be directed to the individual publisher as copyright holder.

---

BioOne is an innovative nonprofit that sees sustainable scholarly publishing as an inherently collaborative enterprise connecting authors, nonprofit publishers, academic institutions, research libraries, and research funders in the common goal of maximizing access to critical research.

# RESEARCH NOTES/CASE REPORTS

*Journal of Wildlife Diseases*, 19(2), 1983, p. 145  
© Wildlife Disease Association 1983

## Ichthyophthiriasis in Farmed Fishes in Iraq

K. A. Khalifa, K. M. Al-Khayat, and F. H. Al-Rijab, Department of Microbiology, College of Veterinary Medicine, University of Baghdad, Baghdad, Iraq

An epizootic of fishes occurred in a 2,000-m<sup>2</sup> pond located 40 km south of Baghdad city during January and February of 1980. Water depth reached 2 m in some areas but was only 30 cm in other regions, especially near the edges. The source of water was from the Tigris River with flow being continuous most of the time. Water temperature was 15 C, dissolved oxygen 8 ppm and pH about 8. Approximately 10,000 fishes of several species were stocked in this pond and consisted of sizes ranging from 5–25 cm in length. They were fed food composed of rice, egg shells, vegetables and in some cases wheat flour.

Diseased fish were covered with small round white spots. In most cases the spots joined together to form areas of dirty-white color. Skin was sometimes shed in the water. Infected fish held their fins close to their body and appeared restless, swam violently and rubbed themselves at the bottom of the pond. Severely infected fish appeared at the surface of the water with sluggish movement, loss of appetite, and showed no tendency to avoid being caught.

Mortality reached more than 40%. The duration of the epizootic was about 3 mo. Several species were involved at different stages of se-

verity (Table 1). On examining wet smears from skin and gills, ciliated protozoa were observed in huge numbers and were identified as *Ichthyophthirius multifiliis*.

*Ichthyophthirius multifiliis* is distributed widely and has been reported from Europe, North America and a number of tropical countries (Duijn, 1973, *Diseases of Fishes*, Iliffe Books, London, England, 372 pp.). There are few reports on the distribution of parasite in Iraq, especially in the Shat Al-Arab region (Sharma, 1977, *Arab Gulf J.* 7: 35–36), and no information is available on the disease in cultured fish ponds in Iraq. Fish culture in Iraq is a newly developed business and there may be annual mortality due to ichthyophthiriasis which is not being recognized.

TABLE 1. Species of farmed fish infected with *Ichthyophthirius multifiliis* in Iraq.

Common name	Scientific name	Number examined <sup>a</sup>	Degree of infection <sup>b</sup>
Common carp	<i>Cyprinus carpio</i>	35	Heavy
Shabout	<i>Barbus grypus</i>	30	Heavy
Bunni	<i>B. sharpei</i>	10	Heavy
Gattan	<i>B. xanthopterus</i>	15	Moderate
Biz	<i>B. esocinus</i>	14	Moderate

<sup>a</sup> All were infected.

<sup>b</sup> Depending on signs and confirmed by microscopic examination.

Received for publication 16 June 1982.