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RESEARCH NOTES/CASE REPORTS

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Ichthyophthiriasis in Farmed Fishes in Iraq

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An epizootic of fishes occurred in a 2,000-m² 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 ^a | Degree of infection ^b |
|-------------|------------------------|------------------------------|----------------------------------|
| Common carp | <i>Cyprinus carpio</i> | 35 | Heavy |
| Shabout | <i>Barbus grypus</i> | 30 | Heavy |
| Bunni | <i>B. sharpeyi</i> | 10 | Heavy |
| Gattan | <i>B. xanthopterus</i> | 15 | Moderate |
| Biz | <i>B. esocinus</i> | 14 | Moderate |

^a All were infected.

^b Depending on signs and confirmed by microscopic examination.

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