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Barbus luteus (Heckel, 1843) fish as a new host to the ciliated parasite *Vorticella globularia* for the first time in Iraq

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Abstract :
Ten *B. luteus* fishes had been collecting from fishermen that fishing by throw net from Euphrates river Al-mussab city during 25 June to 10 July 2018, and examined it, throughout looking for parasite infection, ciliated was arise in four of it, then start measuring it and comparing it with what the taxonomy references and what other researcher find, then the parasite considered as a new intrusive on *B. luteus* fish and this fish as a new host for it in Iraq.

Key words: *Barbus luteus, B. luteus, Vorticella globularia* and fish parasite.

Introduction:
Barbus luteus has been Mentioned, that its regarded as an important food in Iraq and Iran, while its eggs are poisonous, it has a Common name as Himri and it found in all Iraqi water surface, Tigris, Euphrates, marshes, lakes, and its found in the Shatt AlArab river, Saddam Main Outfall Drain, smaller streams, and reservoirs. It is also found in springs, gravel pits, pools, and farm ponds. *B. luteus* has a small area of its gill it makes it intolerance to oxygen-poor water and become relatively inactive. This fish was caught from the Zubayr river where temperature range is 12-30c and salinity between 28-47‰. The fish appear unaffected by such conditions while anther fish like *Heteropneustes fossilis* is suffering and moribund [1]. But [2] be through with him only about classification but he didn't talk about its biological or physiological sides. This fish shows an omnivorous feeding. Animal and plant were found in small and larger fishes but large one eats more aquatic plants and algal, the Hammar Marsh fishes are mainly eaten detritus, its food my be contained algae, diatoms, insects, plants, crustaceans, snails and fish [1].
About parasites infection studies, its investigations are ongoing, this fish *Barbus luteus,* has been infected with many endoparasites and ectoparasites, such as the fungi *Ichthyophonus hoferi* from Diyala river, mid Iraq [3], And there are many searcher how investigate about *B. luteus* infection with parasite like [4];[5];[6];[7] how found *Diplostomum* genes in the fishes eye. [8] has been recommended the infection of Himri with *Phiometra intestinalis*. [9] refer to the infection with the tape worm *Caryophaeides laticeps*. [10] mention the infection with the Ciliated *Trichodina domerguei*, the Monogenae *Dogieius planus*, an adult Cestoda *Paracaryophllaeus gotoi*, Crustacean *Lamproglena pulchella* and *Pseudolamproglena annulata*. [11] he investigate about *B. luteus* parasites, in his study he isolate 16 species it contained three protozoan *Ichthyophthirius maltifiliis, T. domerguei* and *Myxobolus pefefferi*, and five Monogenae *Dactylogyrus extensus, D. kasamii, D. vastator, D. achmerowi,* and *Diplozoon sp.* One Cestoda *Eubothrium salvelini* three Nematoda *Cucullanus cyprini, P, intestinalis* and *Contracaecum, sp.* one Acanthocephala *Neoechinorynchus*

iraqensis and three Crustacean *Ergasilus mosulensis, L. cyprinacea* and *Argulus foliaceus*. [12] wrote about Protozoan and Crustacean that this fish was infected with four parasite *T. domerguei, E. barbi, L. pulchella*. and *P. annulata*. [13] examine infected fishes from Al-daghara river with Monogenae *D. achmerowi, D. extensus, D. kasamii, D. vastator* and *Diplozoon sp.* and the firs record of Cestoda species *Eubothrium salvelini*. Then [14] remind twenty species was infect this fish three protozoan *I. maltifiliis, Myxobolus pfeifferi* and *M. oviformis*, eleven Monogenae *D. achmerowi, D. arquatus, D. carasobarbi, D. dogieli, D. elogantis, D. extensus, D. minutes, D. pavlovskyi, Dogielius persicas, Gyrodactylus medius, Paradiplozoon megan*, two digenae *Asymphylodora demeli* and *A. maceacetebulum*, one Cestoda *Bothriocephalus acheilognathi*, Nematoda larve of *Contracaecum*, one Crustacean *Ergasilus peregrines* and freshwater Shallfish, Mollusca, *Unio pictorum*. [15] in her research about Myxobolus infect fishes of Tigris river in Tikreet city she had isolate 14 species *M. chondrostomi, M. cvprinicola, M. cllipsoides, M.karaelicus, M. koi, M. macrocapsularis, M. mulleri, M nemachili, M. orientalis, M. paryus, M. pseudodispar, M. sandrae, M. schulmani* and *M. sphaerica*. *D. rhodeianus* has been found on the gill of this fish [16]. *B. luteus*, was infected with two Monogenae *D. rhodeianus* and *Diplozoon paradoxum* [17].

This fish was infected with two Digenae *Clinostomum complanatum* and *Diplostomum spathaceum*, and Glochidian *U. pictorum* [18]. Eight parasites isolated from *B. luteus*, two protozoan *I. multifilus* and *T. domerguei* and six of Monogenae *D. carassobabi, D. rhodeianus, Dogielius planus, Diplozoon barbi, D. paradoxum* and *Paradiplozoon pavlovskii* [19]. The Monogenae *Silurodiscoides mediacanthus* recorded for the first time on gills of Himri fish by [20]. In a dispersal about parasites in *B. luteus* has found two species, the Nematodes *Contracaecum* sp. and *Aspidaster limacoides* [21]. Two Myxobolus had been found on this fish, *M. oviformis* and *M. persicus* [22].

Materials and Methods:

Samples were collected from Euphrates river Al-mussab city from fishermen its ten fishes of Himri, *B. luteus*. Sampling was during 25 June 10 July 2018. Fishes were killed by anesthesia by cutting spinal cord and examined for parasites funa by taking smear from their skin, fins and Gills by scalpel gently push toward the slide. Gills were cut and put it in Petri dishes full of normal saline then make smear from it and examined under compound microscope. Smears were attenuate by saline drop with a needle, then examine without cover side and after parasite arise the bug and dirt will be removed from slid and then dried well and but the Canada balsam, finally cover it with cover slide. All parasites were prepared in the same way. Parasites were Measurement by an ocular microscope, then identification by comparing it with the studies before or taxonomy references. The records of new hosts for these parasite were checked with the Index-catalogue by [23].

Results And Discussion:

Fish specimens were collected, and examined and through out examining the slides of the ten fishes noticed a ciliated parasite in four fishes smear, after looking and searching the taxonomy references and theses, The parasitological investigation of this ciliate deals with what [24] recoded and the measurement equalized to what he mention and what [25] described, then by e-mailing Pro. Dr. F.D. Mhaisen, and after

he check his Index-catalogue, [23] the parasite considered as a new intrusive on *B. luteus* and this fish as a new host for it in Iraq.

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