



ORIGINAL ARTICLE

Evaluation the External Parasites infection of Carp fishes in Zarineh-rud River in Miandoab

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ABSTRACT

In this research, external parasites infection of carp fishes in zarineh-rud River in Miandoab, were examined. Species of fishes that examined including, capoeta, cyprinus carpio, carasius and ctenophoran. Totally, number of seven species of the parasitic included two species of Protozoan and four species of monogen and a species of crustacean, of these fishes separated and identified, that all had direct life cycle. According to results seventy percent of the fishes were infected to species mentioned parasites. In comparison different seasons, the most amount of infection in the summer and the lowest amount of pollution in winter was observed.

Key words: Parasite, Monogen, Carp fish

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INTRODUCTION

Zarineh-rud River in south of Urmia Lake located in the West Azarbaijan Province and watershed basin of this lake. that's local name is Jekhato attributed to name of the one of Chenghis Khan sons, Today in the eastern of Miandoab city , as one of the greatest Rivers of Azarbaijan has special importance in economic, agricultural and ecological. Zarinehrud origin from the chehelcheshme mountains of Kurdistan between the Sagger and Bane from local the name Chamr of Sagger, and after receiving 16 tributaries and cross the vast plains in Miandoab, it is entered to the Urmia lake from the southeast corner [4]. The overall structure of the river bed and the sides of the river can be gravelly-sandy. River discharge during the 3 to 25 years from 49.52 m³/s to 31.77 m³/s is variable and changes in physical and chemical properties also are irregular [3]. And that's fish reserves have been put on fishing auctions many years by the environmental area. Iran fisheries over the past years attempted to Fish of and introduce the fish species to river. In studies of before, pollution of external parasites in Carp fishes in Zarineh-rud River is being checked, that this fish have a high value fisheries and as the source of pollution for the upbringing collection of fesenduz has vital importance [4].

MATERIALS AND METHODS

Sampling of fish to detect parasites in the skin, fins and gills of fish caught from the Zarineh-rud River, from summer 2012 to summer 2013. During the year a number of 120 pieces of fish alive by tanker carrying fish sent to laband thence anesthetized by a blow to the head and set the fish species using identification keys, Coad [5] done biometric, Case studies were Parasitology. for macroscopic lesions of the skin, fins and gills of fish, check the help of a magnifying glass (magnification 2-4) and microscopic examination, made By biopsy of the skin, fins, gills and eyes of fishes and samples by light microscopy (magnification* 4x100) were searched. Isolation, stabilization and identification parasites based on the instructions, Gussev [7, 8], Fernando [6], Low and Dykova [9] and Jalali [1] were done.

RESULTS

A total of 120 fish species examined in this study number of seven species of the parasitic included two species of Protozoan and four species of monogen and a species of crustacean, of these fishes separated

and identified. In Table number 1 the names of the parasites isolated from this species have been separated.

Table1: parasites have been found in carp fish zarineh-rud river seasonal infection

1	<i>Capaetacapoela gracilis</i> (Guldenstodt. 1772)	<i>Trichodina sp.1</i> (Ehrenberg , 1831)
		<i>Ichthyophthiriusmultwliis</i> (Foruquet.1 876)
		<i>D. lenkorani</i> (Mikailov. 1967)
		<i>Paradiplozoon sp.1</i> (Achmerov. 1974)
		<i>Clinostomumcomplanatum</i> (Rudi 1819)
2	Ctenopharyngodo nidella (Valenciennesi 1844)	<i>Lernaea sp.</i> (Linnaeus. 1746)
		<i>I multwliis</i> (Fouquet. 1876)
3	C arasiuscarasius (Linnaeusi 1758)	<i>D. Iamellalus</i> (Achmerow. 1952)
		<i>Lernaea sp.</i> (Linnaeusi 1746)
4	Cyprinus carpio (Linnaeus. 1758)	<i>L multyiliis</i> (Fouquet. 1876)
		<i>D. extensus</i> (Muellernand Van Clive. 1932)
		<i>Lernaeasp.</i> (Linnaeus. 1746)

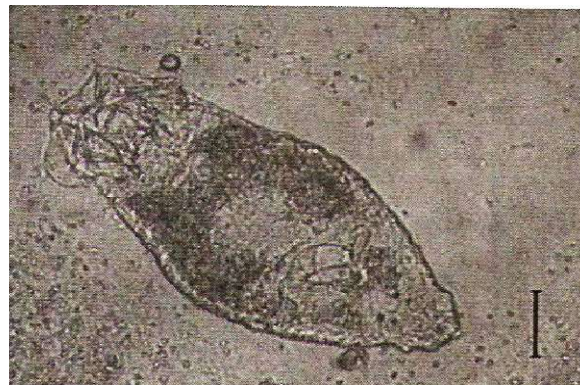


Fig 1. Daktuljilus Inkorani parasite (magnification *40) (writer)



Fig 2. Daktuljilus Inkorani parasite (magnification *40) (writer)

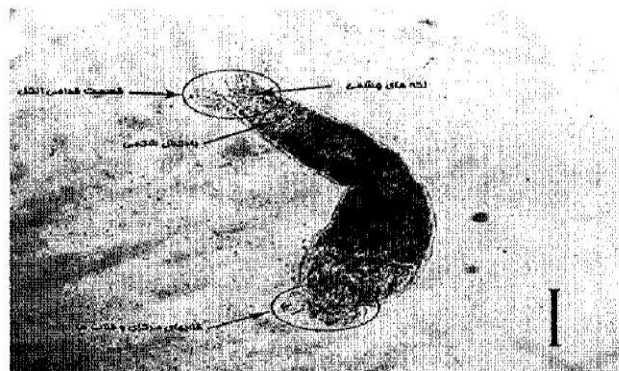


Fig 3. Daktuljirus extensus parasite (magnification *10) (writer)



Fig 4. The central hook of daknelijirus extensus (magnification *100) (writer)

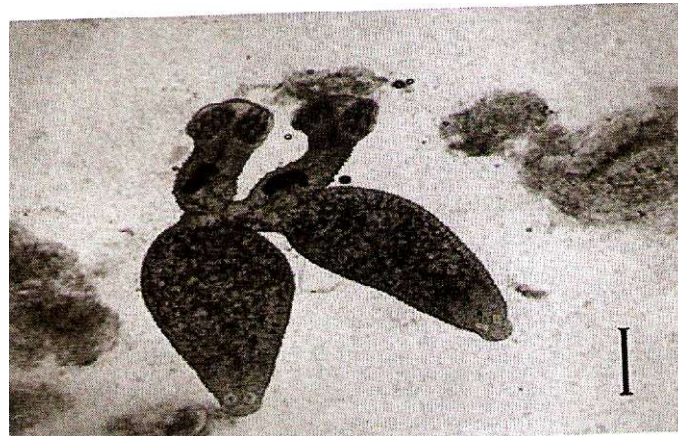


Fig 5. Paradiplozeon parasite (magnification *10) (writer)

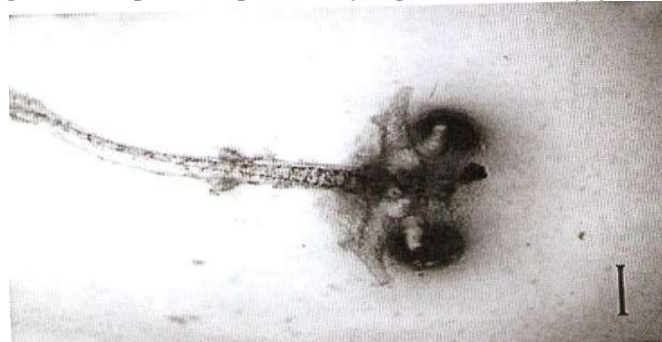


Fig 6. Lerneae parasite (magnification *10) (writer)

DISCUSSION

Identifying parasites in fish of water resources or resident (whether natural or artificial) of the necessities to maintain environmental conditions in a way that successful relationship and lasting parasites fish hosts and they will lead to growth both groups of animals are inevitable necessity of ecosystems is the waters of world. On the other hand, due to the changes caused by human activities such as the construction of dams and reservoir, The river path deviation, fishing and the development of human activities a continuous relationship with the value of the biologists with the host they somehow have the risk that led to the reduction or even the destruction of some species, which in terms reserves of gene included in the national wealth are. Fishing will decrease host density and position in the result less forms meeting free and infectious parasites breeding with their host of. The host introduced new water without a source of observing the standards accepted by the introduced parasites have the scope of the new host and vast in the end due to the outbreak of reserves will decrease fishes especially in construction of dams. The use of water for aquaculture development (common carp and carp chinese fish), as the river Zarineh is designed and implemented in addition to being a rich fish fauna of the river is the most common parasite of both protozoa and also takes hyperplasia . Fishes introduced to the river Zarineh have all the Cyprinidae Zarineh River most of the Cyprinidae are therefore particularly carp fish parasites transfer between native and introduced fish easily [2, 10]. The influence of the parasite has been introduced as the participants graves threatened biological conditions that they due to human interference that is desirable is also more

for conditions for growth of production like defense and etc. This native fish due to ecosystem changes and improper parasites to worsening this situation especially parasites help single host and host characteristics without so research in parasites And all the fish determine von parasitic and the quality of the influence of these parasites made her debut on his fish have been introduced and the river and the pool of curly fesenduz connect they fish and native or introduced into the river the river curly into two groups classified:

1. group has features hosted by (host specific) would be able to or such and such a special very close to host the septic to proper sample this group monogen. fish in the river as curly parasitic *Dactylogyrus lenkorani* black fish the parasitic *Dactylogyrus lamellatus* of ordinary fish each with exclusive host and would be able to defile the very near to his host.

2. But the parasite group has the scope of the host that the index of a large portrait of their Protozoan, lerne, trikodina, maltifils, iktiofetrios and hard skin and that is lack of alternative or characteristics would be able to host weakness in most hosts native or introduced and established in the conditions and in the field concerning the managerial stress physical and chemical causes disease and casualties a lot especially in children.

In addition during many years in order to expand activities stationing new carp common carp fish and Chinese River to river curly have been introduced that the fish in addition to the special connection parasites like monogen it would be able to Without that other parasites characteristics also host transport to different forms to farms transferred to upbringing. With regard to the findings of this study (iktiofetrios, trikodina, monogene, klinostom, lerne) Main threat as they can fish in the river the curly was mentioned and even parasites can serious threats for upbringing in fish pools fesenduz plan. In the river fish The curly variety of the most parasitic fish belonging to black *Capoetacapoeta gracilis* with 6 such parasites of all the groups is parasitic And's carpius 3 piece parasitic as the second of the alloy to be parasites. In total 120 samples investigated 60 piece (50%) fish black has been the abundance that indicates that most such generally fish fishing. Many such possible establishments of various types of parasites are hurt and it seems that this fish has the ability to accept the great diversity of parasites importantly, various parasites; especially monogen is greatly influenced by the environment. Determination of infection in host fish. The hosts of a home are more likely contaminant new host-parasite grows. Zarina is also abundant in the river fish, black fish accounted for most of the population, for this reason most of the parasite pollution of this fish has been reported.

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