Introduction

This publication is one in a series of pictorial guides that is designed to assist in the identification of common freshwater fish parasites. The publications included in this series are:

- Common Freshwater Fish Parasites Pictorial Guide: Sessile Ciliates
- Common Freshwater Fish Parasites Pictorial Guide: Motile Ciliates
- Common Freshwater Fish Parasites Pictorial Guide: Dinoflagellates, Coccidia, Microsporidians, & Myxozoans
- Common Freshwater Fish Parasites Pictorial Guide: Monogeneans
- Common Freshwater Fish Parasites Pictorial Guide: Digenean Trematodes
- Common Freshwater Fish Parasites Pictorial Guide: Nematodes
- Common Freshwater Fish Parasites Pictorial Guide: Acanthocephalans, Cestodes, Leeches, & Pentastomes
- Common Freshwater Fish Parasites Pictorial Guide: Crustaceans

The information provided in this guide is not intended to be a complete, detailed description of each parasite or parasite group and its characteristics but rather is intended to assist in the visual identification of some of the most common species or groups of parasites seen in freshwater fish. For further information on each parasite, refer to publications in the “Recommended Reading” and “Reference” sections below.

Guide Information

- Target Tissue: provides the location on/in the fish where the parasite is most commonly found.
- Characteristic: provides a brief description about the appearance of the parasite.
• Size: provides the size or size range of the parasite. (1 \( \mu m = 0.001 \) mm = 0.0001 cm) (\( \mu m = \) micron or micrometer; mm = millimeter; cm = centimeter)

• Movement: provides the type of movement, if any, of the parasite.

• Note: provides a brief comment of interest about the parasite.

**Printing Tips**

For the best results as a pictorial guide, print this document in color on photo quality paper at a photo or “best” setting.

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**Recommended Reading**


UF/IFAS Circular 91 Nematode (Roundworm) Infections in Fish. [http://edis.ifas.ufl.edu/FA091](http://edis.ifas.ufl.edu/FA091)

UF/IFAS Circular 120 Fish Health Management Considerations in Recirculating Aquaculture Systems - Part 1: Introduction and General Principles. [http://edis.ifas.ufl.edu/FA099](http://edis.ifas.ufl.edu/FA099)

UF/IFAS Circular 121 Fish Health Management Considerations in Recirculating Aquaculture Systems - Part 2: Pathogens. [http://edis.ifas.ufl.edu/FA100](http://edis.ifas.ufl.edu/FA100)

UF/IFAS Circular 122 Fish Health Management Considerations in Recirculating Aquaculture Systems - Part 3: General Recommendations and Problem Solving Approaches. [http://edis.ifas.ufl.edu/FA101](http://edis.ifas.ufl.edu/FA101)

UF/IFAS Circular 716 Introduction to Freshwater Fish Parasites. [http://edis.ifas.ufl.edu/FA041](http://edis.ifas.ufl.edu/FA041)

UF/IFAS Circular 919 Stress--It's Role in Fish Disease. [http://edis.ifas.ufl.edu/FA005](http://edis.ifas.ufl.edu/FA005)

UF/IFAS Circular 920 *Ichthyophthirius multifiliis* (White Spot) Infections in Fish. [http://edis.ifas.ufl.edu/FA006](http://edis.ifas.ufl.edu/FA006)

UF/IFAS Circular 921 Introduction to Fish Health Management. [http://edis.ifas.ufl.edu/FA004](http://edis.ifas.ufl.edu/FA004)

UF/IFAS Fact Sheet FA-13 Use of Copper in Freshwater Aquaculture and Farm Ponds. [http://edis.ifas.ufl.edu/FA008](http://edis.ifas.ufl.edu/FA008)

UF/IFAS Fact Sheet FA-23 The Use of Potassium Permanganate in Fish Ponds. [http://edis.ifas.ufl.edu/FA032](http://edis.ifas.ufl.edu/FA032)

UF/IFAS Fact Sheet FA-28 Monogenean Parasites of Fish. [http://edis.ifas.ufl.edu/FA033](http://edis.ifas.ufl.edu/FA033)

UF/IFAS Fact Sheet FA-37 Use of Potassium Permanganate to Control External Infections of Ornamental Fish. [http://edis.ifas.ufl.edu/FA027](http://edis.ifas.ufl.edu/FA027)

UF/IFAS Fact Sheet FA-55 Submission of Fish for Diagnostic Evaluation. [http://edis.ifas.ufl.edu/FA055](http://edis.ifas.ufl.edu/FA055)

UF/IFAS Fact Sheet FA-90 Pentastomid Infections in Fish. [http://edis.ifas.ufl.edu/FA090](http://edis.ifas.ufl.edu/FA090)

UF/IFAS Fact Sheet FA-107 Common Freshwater Fish Parasites Pictorial Guide: Sessile Ciliates. [http://edis.ifas.ufl.edu/FA107](http://edis.ifas.ufl.edu/FA107)

UF/IFAS Fact Sheet FA-108 Common Freshwater Fish Parasites Pictorial Guide: Motile Ciliates. [http://edis.ifas.ufl.edu/FA108](http://edis.ifas.ufl.edu/FA108)


UF/IFAS Fact Sheet FA-111 Common Freshwater Fish Parasites Pictorial Guide: Monogeneans. http://edis.ifas.ufl.edu/FA111

UF/IFAS Fact Sheet FA-112 Common Freshwater Fish Parasites Pictorial Guide: Digenean Trematodes. http://edis.ifas.ufl.edu/FA112

UF/IFAS Fact Sheet FA-113 Common Freshwater Fish Parasites Pictorial Guide: Nematodes. http://edis.ifas.ufl.edu/FA113


UF/IFAS Fact Sheet VM-77 Use of Formalin to Control Fish Parasites. http://edis.ifas.ufl.edu/VM061

UF/IFAS Fact Sheet VM-78 Bath Treatment for Sick Fish. http://edis.ifas.ufl.edu/VM037

UF/IFAS Fact Sheet VM-85 "Red Sore Disease" in Game Fish. http://edis.ifas.ufl.edu/VM059

UF/IFAS Fact Sheet VM-86 Use of Salt in Aquaculture. http://edis.ifas.ufl.edu/VM007


UF/IFAS Fact Sheet VM-104 Cryptobia iubilans in Cichlids. http://edis.ifas.ufl.edu/VM077

References


Argulus
(“Fish Louse”)

- **Target Tissues:** Skin, fin
- **Appearance:** Flattened, saucer shape; two suckers; two eyespots
- **Size:** Juveniles approx. 1-3 mm in length; adults approx. 5-20 mm in length
- **Movement:** Free-moving; may glide over fish when feeding
- **Note:** Can be seen with unaided eye; common in koi and goldfish; sucks body fluids from host; egg-layer (requires multiple treatments)

Lernaea
(“Anchor Worm”)

- **Target Tissues:** Skin, fin
- **Appearance:** Long, narrow; “anchor” at one end imbeds into fish; pair of egg sacks often seen at end opposite of anchor
- **Size:** Approx. 5-25 mm in length
- **Movement:** Generally seen fixed (attached with anchor) on fish
- **Note:** Only females are parasitic; can cause secondary bacterial infections due to wound from anchor; common in koi, goldfish, and golden shiners

Ergasilus

- **Target Tissues:** Primarily gills
- **Appearance:** Conical, segmented body with grasping antennae
- **Size:** Usually greater than 2 mm in length
- **Movement:** Generally seen fixed (attached with grasping antennae) on fish
- **Note:** Direct life cycle; often incidental on fish but modified antennae used to grasp fish can cause severe, localized damage and infection