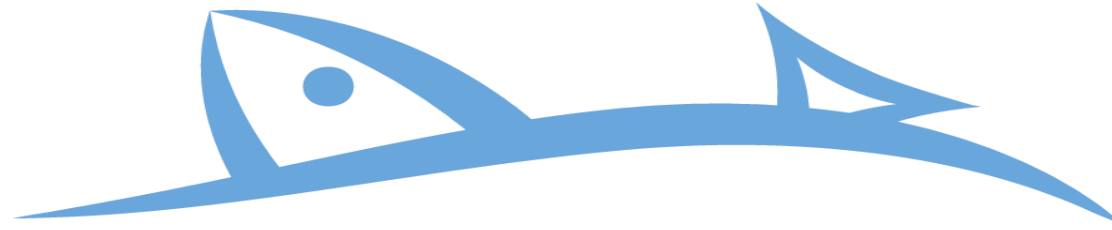


Incontro formativo e d'aggiornamento API- SIPI  
Miglioramento della salute dei pesci: il contributo della ricerca  
25 settembre 2020

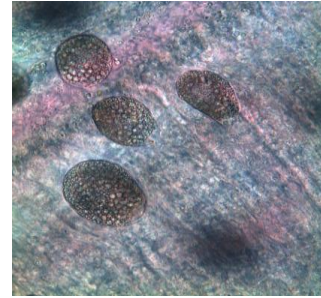
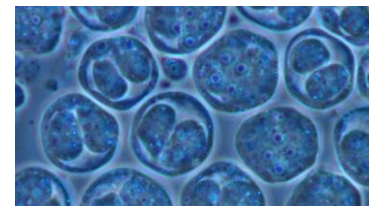
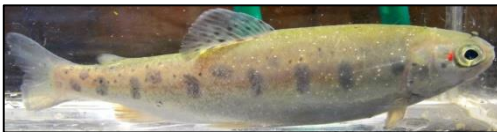
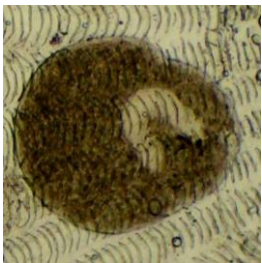
M.L. Fioravanti, A. Gustinelli, M. Caffara – DIMEVET, UNIBO



# ParaFishControl

Advanced Tools and Research Strategies for  
Parasite Control in European farmed fish

1 aprile 2015 – 31 marzo 2020





28 partners da enti di ricerca e industria di 13 paesi europei

Coordinatore: Prof. Ariadna Sitjà-Bobadilla



## Obiettivi generali di ParaFishControl



- Migliorare la sostenibilità e la competitività dell'acquacoltura europea
- Aumentare le conoscenze sulle interazioni tra parassiti e pesci
- Sviluppare soluzioni e strumenti innovative per la prevenzione, il controllo e la mitigazione delle principali malattie parassitarie delle specie ittiche di maggiore importanza commerciale in Europa (salmone atlantico, trota iridea, carpa, spigola, orate e rombo)



**PER DISSEMINARE I RISULTATI DEL PROGETTO, OLTRE A PUBBLICAZIONI SCIENTIFICHE, CONFERENZE, FORUM CON L'INDUSTRIA E CORSI DI FORMAZIONE, SONO STATI PRODOTTI E RESI DISPONIBILI ONLINE DIVERSI STRUMENTI DI SUPPORTO ALL'APPLICAZIONE DI MISURE DI CONTROLLO E CONTENIMENTO DELLE PRINCIPALI MALATTIE PARASSITARIE RIVOLTI AD ALLEVATORI E RESPONSABILI D'IMPIANTO.**

<https://www.parafishcontrol.eu/>

FRA QUESTI STRUMENTI SONO DISPONIBILI 4 MANUALI PER COMBATTERE E/O MITIGARE LE PRINCIPALI INFEZIONI PARASSITARIE DELLE SPECIE ITTICHE PRESE IN CONSIDERAZIONE NEL PROGETTO, COMPRENSIVE DI:

- CICLO BIOLOGICO E VIE DI TRASMISSIONE DEI PRINCIPALI PARASSITI CHE CAUSANO MALATTIA NEI PESCI ALLEVATI
- PRESENTAZIONE CLINICA DELLA MALATTIA
- DIAGNOSI E MONITORAGGIO
- PRINCIPALI FATTORI DI RISCHIO PER L'INTRODUZIONE DEI PARASSITI E L'INSORGENZA DELLE MALATTIE PARASSITARIE
- MISURE DI CONTROLLO.

LA CORRETTA APPLICAZIONE DI QUESTE MISURE RICHIEDERÀ COMUNQUE PIANI DI BIOSICUREZZA SU MISURA PER L'AZIENDA CON IL SUPPORTO DI PROFESSIONISTI QUALIFICATI E CENTRI DIAGNOSTICI.

LA GUIDA FORNITA PER I SINGOLI PARASSITI RIFLETTE LO STATO ATTUALE DELLE CONOSCENZE PER QUESTI PATOGENI, OTTENUTE ANCHE NELL'AMBITO DEL PROGETTO PARAFISHCONTROL, CHE HA AMPLIATO LE CONOSCENZE SCIENTIFICHE SUI PRINCIPALI PARASSITI DEI PESCI ALLEVATI IN EUROPA.



## Specific Tools for Farm Managers

ParaFishControl has developed specific tools to help farm managers to control parasitic diseases in their farms. These tools provide information to support the management of the main disease-causing parasites affecting the farming of salmonids, turbot, carp, seabass and seabream in European countries. The resources include background on the parasites' biology, an examination of key risks for infection and disease progression, up-to-date guidance for the identification of symptoms, as well as guidance on management and control of the parasite. As well as in-depth manuals, resources include presentations and other written guides.

|    |   |    |   |
|----|---|----|---|
| 26 | Fish Farmer's Guide to Combating Parasitic Infections in Salmonid Aquaculture                                 | 32 | Integrated Pest Management Strategies for <i>Saprolegnia</i>  |
| 27 | Fish Farmer's Guide to Combating Parasitic Infections in European Sea Bass and Gilthead Sea Bream Aquaculture | 33 | Integrated Pest Management Strategies for <i>Phyllosteroles dicentrarchi</i>  |
| 28 | Fish Farmer's Guide to Combating Parasitic Infections in Common Carp Aquaculture                              | 34 | Integrated Pest Management Strategies for <i>Enteromyxum leei</i>   |
| 29 | Fish Farmer's Guide to Combating Parasitic Infections in Turbot Aquaculture                                   | 35 | Integrated Pest Management Strategies for <i>Sparicotyle chrysophrii</i>  |
| 30 | Integrated Pest Management Strategies for Sea Lice  | 36 | Free online tool for farmers to plan parasite control in Mediterranean aquaculture  |
| 31 | Integrated Pest Management Strategies for <i>Neoparamoeba perurans</i>  | 37 | Voluntary Control System to monitor the presence/absence of <i>Anisakis</i> (and other zoonotic helminths) in farmed fish |

## Tools for Farm Managers

### MANUALI PER CONTRASTARE LE INFEZIONI PARASSITARIE IN SALMONIDI, CARPA, ROMBO, SPIGOLA E ORATA

**Guide 1.** Fish Farmer's Guide to Combating Parasitic Infections in Salmonid Aquaculture (Click on the image below to download it)



[https://www.parafishcontrol.eu/images/PARAFISHCONTROL/Manuals/PFC-Manual1\\_Salmonoid\\_vFINAL\\_web.pdf](https://www.parafishcontrol.eu/images/PARAFISHCONTROL/Manuals/PFC-Manual1_Salmonoid_vFINAL_web.pdf)

**Guide 3.** Fish Farmer's Guide to Combating Parasitic Infections in Common Carp Aquaculture (Click on the image below to download it)



[https://www.parafishcontrol.eu/images/PARAFISHCONTROL/Manuals/PFC-Manual3\\_Carp\\_vFINAL\\_web.pdf](https://www.parafishcontrol.eu/images/PARAFISHCONTROL/Manuals/PFC-Manual3_Carp_vFINAL_web.pdf)

**Guide 2.** Fish Farmer's Guide to Combating Parasitic Infections in Turbot Aquaculture (Click on the image below to download it)



[https://www.parafishcontrol.eu/images/PARAFISHCONTROL/Manuals/PFC-Manual2\\_Turbot\\_vFINAL\\_web.pdf](https://www.parafishcontrol.eu/images/PARAFISHCONTROL/Manuals/PFC-Manual2_Turbot_vFINAL_web.pdf)

**Guide 4.** Fish Farmer's Guide to Combating Parasitic Infections in European Sea Bass and Gilthead Sea Bream Aquaculture (Click on the image below to download it)



[https://www.parafishcontrol.eu/images/PARAFISHCONTROL/Manuals/PFC-Manual4\\_Seabass\\_Seabream\\_vFINAL.pdf](https://www.parafishcontrol.eu/images/PARAFISHCONTROL/Manuals/PFC-Manual4_Seabass_Seabream_vFINAL.pdf)



## OBIETTIVO STRATEGICO DEL PROGETTO PARAFISHCONTROL E' UN «SUSTAINABLE INTEGRATED PARASITE MANAGEMENT»

Integrated parasite management (IPM) è un complesso di azioni di prevenzione e controllo delle infezioni parassitarie, identificate attraverso un'analisi dei fattori di rischio e dei punti critici che le favoriscono, integrate con interventi strutturali, aspetti gestionali, percorsi di formazione nonché l'utilizzo di trattamenti appropriati quando necessario ma sempre in modo razionale (Sitjà-Bobadilla e Oidtmann, 2017).

IPM prevede approcci multipli e integrati per il controllo delle infezioni parassitarie tenendo in considerazione aspetti economici, epidemiologici, etc., l'utilizzo di buone pratiche igienico-sanitarie e delle essenziali norme di Biosicurezza in base alla tipologia di produzione e alla struttura gestionale a questa legata in relazione ai diversi agenti parassitari.

### Specific Tools for Farm Managers

ParaFishControl has developed specific tools to help farm managers to control parasitic diseases in their farms. These tools provide information to support the management of the main disease-causing parasites affecting the farming of salmonids, turbot, carp, seabass and seabream in European countries. The resources include background on the parasites' biology, an examination of key risks for infection and disease progression, up-to-date guidance for the identification of symptoms, as well as guidance on management and control of the parasite. As well as in-depth manuals, resources include presentations and other written guides.

|    |   |    |   |
|----|---|----|---|
| 26 | Fish Farmer's Guide to Combating Parasitic Infections in Salmonid Aquaculture                                 | 32 | Integrated Pest Management Strategies for <i>Saprolegnia</i>  |
| 27 | Fish Farmer's Guide to Combating Parasitic Infections in European Sea Bass and Gilthead Sea Bream Aquaculture | 33 | Integrated Pest Management Strategies for <i>Phylasterides dicentrarchi</i>   |
| 28 | Fish Farmer's Guide to Combating Parasitic Infections in Common Carp Aquaculture                              | 34 | Integrated Pest Management Strategies for <i>Enteromyxum leei</i>   |
| 29 | Fish Farmer's Guide to Combating Parasitic Infections in Turbot Aquaculture                                   | 35 | Integrated Pest Management Strategies for <i>Sparicotyle chrysophrii</i>  |
| 30 | Integrated Pest Management Strategies for Sea Lice  | 36 | Free online tool for farmers to plan parasite control in Mediterranean aquaculture  |
| 31 | Integrated Pest Management Strategies for <i>Neoparamoeba perurans</i>  | 37 | Voluntary Control System to monitor the presence/absence of <i>Anisakis</i> (and other zoonotic helminths) in farmed fish |

## Tools for Farm Managers

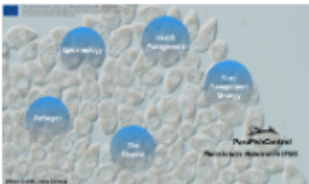
**Integrated Pest Management Strategies for Sea Lice** (Click on the image below to download it)



**Integrated Pest Management Strategies for *Neoparamoeba perurans*** (Click on the image below to download it)



**Integrated Pest Management Strategies for *Philasterides dicentrarchi*** (Click on the image below to download it)



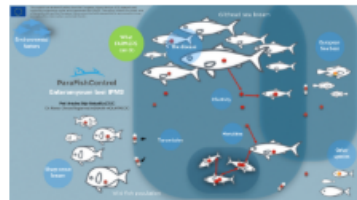
## Tools for Farm Managers

**Integrated Pest Management Strategies for *Saprolegnia*** (Click on the image below to download it)



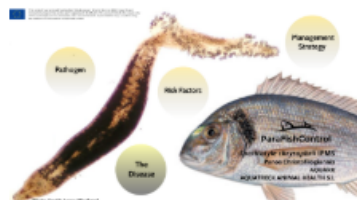
<https://prezi.com/view/A8ImO7A54gCnaMUIOWFM/>

**Integrated Pest Management Strategies for *Enteromyxum leei*** (Click on the image below to download it)



<https://prezi.com/view/RaRI97iduGmXznX8eERN/>

**Integrated Pest Management Strategies for *Sparicotyle chrysohris*** (Click on the image below to download it)



<https://prezi.com/view/eFHEqI16KBnOczqJF75M/>