

GILL ECTOPARASITES OF SOME FISH SPECIES CAUGHT IN THE GULF OF BEJAIA, EAST ALGERIA

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METHODOLOGY

In order to evaluate parasitism in various species with different ecological characteristics by examining the gills of 120 teleost fishes belonging to 12 species (*Carangidae*; *Clupeidae*; *Engraulidae*; *Gadidae*; *Mullidae*; *Squalidae*; *Sparidae*; *Xiphiidae*) fished in the Gulf of Bejaia between 29 March and 29 May 2022.

RESULTS AND DISCUSSION

Tab. 1 - Taxonomic list of species examined (NFE= Number of fish examined)

Order	Family	Species (Binominal name)	NFE	Study site
Clupeiformes	Clupeidae	<i>Sardinella aurita</i> (Valenciennes, 1847)	31	Bejaia fishing port
		<i>Sardina pilchardus</i> (Walbaum, 1792)	11	
	Engraulidae	<i>Engraulis encrasicolus</i> (Linnaeus, 1758)	11	
Perciformes	Carangidae	<i>Trachurus trachurus</i> (Linnaeus, 1758)	11	
		<i>Seriola dumerili</i> (Risso, 1810)	02	
	Mullidae	<i>Mullus surmuletus</i> (Linnaeus, 1758)	20	
		<i>Boops boops</i> (Linnaeus, 1758)	06	
	Sparidae	<i>Pagellus erythrinus</i> (Linnaeus, 1758)	20	
		<i>Sparus aurata</i> (Linnaeus, 1758)	03	
Carangiformes	Xiphiidae	<i>Xiphias gladius</i> (Linnaeus, 1758)	01	
Gadiformes	Gadidae	<i>Merlangius merlangus</i> (Linnaeus, 1758)	01	
Squaliformes	Squalidae	<i>Squalus acanthias</i> (Linnaeus, 1758)	03	
Total	8	12	120	

Tab. 2 - Distribution of parasite indices according to parasite species (Im= Average parasite intensity, Am= Average parasite abundance, (NI= not identify))

Parasite group	Parasite species	Parasite number	Im	Am
Monogenea	<i>Tristoma</i> sp	26	26	0,22
	<i>Mazocraeoides</i> sp	3	1,5	0,03
	<i>Microcotyle</i> sp	2	1	0,02
	<i>Rajonchocotyle</i> sp	29	29	0,24
	<i>Squalonchocotyle</i> sp	2	2	0,02
	<i>Monogenes</i> NI	9	1,8	0,08
	<i>Anisakis</i> sp	1	1	0,01
Nematoda	<i>Nematodes</i> NI	2	1	0,02
Crustacea	<i>Argulus</i> sp	2	2	0,02
	<i>Clavella</i> sp	4	2	0,03
	<i>Caligus</i> sp	22	11	0,18
	<i>Lernanthropus</i> sp	2	2,0	0,02
	<i>Gnathia</i> sp	5	0,7	0,04
	<i>Cymothoides</i> sp	4	2	0,03
	<i>Lernaea</i> sp	1	0,3	0,01
Protozoa	<i>Protozoaires</i> NI	2	1	0,02

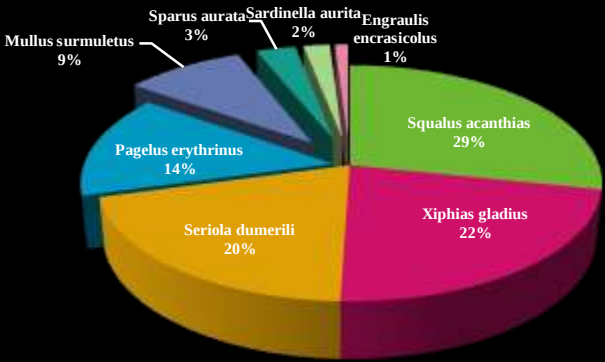


Fig. 2 - Rate of ectoparasites collected from the 12 host species

Out of 120 fish examined, 31 were infested with a prevalence of 26% [1]. The infestation rate for gill ectoparasites is highest in the fish *Squalus acanthias* with 28%, followed by *Xiphias gladius* with 22% and then *Seriola dumerili* with 20%.

The study showed the presence of 116 parasites consisting of 18 different parasites belonging to three groups: *Monogenea* (07 species), *Crustacea* (07 species), *Nematodea* (02 species) and *Protozoa* (02 species).

Monogenea constitute in majority 61% of the total parasites recorded, because of the dominance of *Rajonchocotyle* sp and *Tristoma* sp. Then come the *Crustacea* with 34% because of the predominance of the parasite *Caligus* sp, the *Nematodea* with 3% and the *Protozoa* with 2% [2].

The highest value of the parasite index was recorded in the two *Monogenea* *Rajonchocotyle* sp and *Tristoma* sp, followed by the *Crustacea* *Caligus* sp.

CONCLUSIONS

Our results did not show an apparent pathogenic effect from the presence of these parasites (*Monogenea* and *Crustacea*). Many authors have pointed to the existence of pathologies following gill infections by parasites. Economic losses due to infection result not only from direct damage to fish, but also from the disfigurement that makes food fish and ornamental fish unsuitable for sale.

REFERENCES

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