

THE STUDY OF SOME ASPECTS OF NEMATODE
LIFE IN THE POLLUTED MARINE
ENVIRONMENT

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The study of some aspects of nematode parasites in commercialized marine fishes in the market / Sandra Catherine Zajnathan.



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**THE STUDY OF SOME ASPECTS OF NEMATODE PARASITES
IN COMMERCIALIZED MARINE FISHES IN THE MARKET**

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**This proposal is submitted in partial fulfillment of the requirement of the
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ABSTRACT

Nematodes are common parasites of fish and in some cases the marine fish is the definitive host .So, these nematodes can cause diseases to humans prior to human consumption such as Anisakiasis. The main aim of this study was to identify the species of nematode parasites in four selected fish species from the family Carangidae which are commercialized marine fishes in the market. The samples were bought from the market and it was dissected, fixed, mounted and identified. Four species of nematode were found in the four selected species of commercialized marine fishes which are: *Anisakis simplex*, *Contracaecum* sp., *Hysterothylacium aduncum* and *Camallanus* sp.. The host fishes among the four species of fishes were identified in which *Decapterus maruadsi* is the host fish for *Camallanus* sp. , The host species for *Contracaecum* sp. is *Selaroides leptolepis* , *Selar crumenophthalmus* is the host species for *Anisakis simplex*. And all the four species of commercialized marine fishes are the host fishes for *Hysterothylacium aduncum* . The prevalence and mean intensity of nematode infection were estimated. *Selaroides leptolepis* has the highest prevalence of 95% as *Atule mate* has the lowest prevalence of 21%. All the sampled fish species were infected with nematode parasites.

ABSTRAK

Cacing nematode merupakan parasit am ikan dan juga merupakan perumah definitif. Maka, cacing nematod boleh menyebabkan penyakit kepada manusia melalui ikan sebagai makanan . Ia boleh menyebabkan penyakit seperti penyakit Anisakiasis. Objektif utama kajian ini adalah untuk mengenalpasti parasit nematode yang hadir dalam empat spesies ikan daripada famili Carangidae yang merupakan ikan komersial. Sampel-sampel ikan in telah dibeli di pasar and ia telah dipotong, diperiksa dan telah dikenalpasti spesies cacing nematode yang hadir. Empat spesies cacing nematode telah dikenalpasti iaitu : *Anisakis simplex*, *Contracaecum* sp., *Hysterothylacium aduncum* dan *Camallanus* sp.. Ikan perumah di antara keempat-empat sample ikan telah dikenalpasti iaitu : *Decapterus maruadsi* adalah perumah bagi *Camallanus* sp. , perumah bagi *Contracaecum* sp. adalah *Selaroides leptolepis*, *Selar crumenophthalmus* adalah perumah bagi *Anisakis simplex* dan selain daripada itu juga, keempat ikan tersebut merupakan perumah bagi *Hysterothylacium aduncum*. Prevalens dan min intensiti bagi jangkitan parasit pada ikan juga telah ditentukan di mana *Selaroides leptolepis* mempunyai prevalens yang tertinggi. Manakala, *Atule mate* telah menunjukkan prevalens yang terendah. Melalui kajian ini juga, telah didapati bahawa keempat-empat spesies ikan telah dijangkiti oleh cacing nematod.