

ABSTRACT

(A taxonomic study on free-living nematodes had been carried out in Sarawak coastal waters to clarify the systematic and distribution of nematodes in Sarawak. This is the first taxonomic study conducted in Sarawak. The aim of the present study is to establish the database for marine nematodes in Sarawak. The sampling was carried out at 24 study sites along the coastal waters of Sarawak covers the intertidal and subtidal area. Three replicates of marine sediment were taken and sieved *in-situ* using seawater with a 500 μ m sieve above and 45 μ m sieve below before preserved in the specimen bottle with 5% buffered formalin. In the laboratory, the nematodes specimen were processed, mounted and identified.) A total of one hundred and eleven species, representing forty seven genera and twenty families was identified from twenty four study sites along the Sarawak coastal waters. All the species are first recorded in Sarawak, and were grouped according to the habitat (sediment type) station under study. All species were described and illustrated with taxonomic notes and discussions. Pictorial keys of identification for species were produced. Station S20 recorded the highest number of marine nematodes species (twenty six species) followed by S16 with seventeen species. Meanwhile, taxonomic results show that Family Xyalidae is the most diverse family in the present study with eighteen species had been documented followed by Family Desmodoridae (thirteen species).

TAKSONOMI NEMATOD (NEMATODA) YANG HIDUP BEBAS DI PERAIRAN

PANTAI SARAWAK

ABSTRAK

Kajian taksonomi terhadap nematod yang hidup bebas telah dijalankan di sepanjang persisiran pantai Sarawak untuk menjelaskan sistematik dan taburan nematod di Sarawak. Kajian ini merupakan kajian taksonomi yang pertama yang dijalankan di Sarawak. Objektif utama kajian ini adalah untuk menghasilkan satu data asas untuk nematod marin di Sarawak. Penyampelan sampel dijalankan di 24 stesen kajian di sepanjang persisiran pantai Sarawak meliputi kawasan pasang surut dan bawah pasang surut. Tiga replikat sedimen marin diambil dan ditapis 'in-situ' menggunakan air laut dengan 500 μm penapis di atas dan 45 μm penapis di bawah sebelum disimpan di dalam botol spesimen bersama 5 % penimbal formalin. Di makmal, spesimen nematod diproses, dibingkai dan dikenalpasti. Sebanyak seratus sebelas spesies telah dikenalpasti daripada dua puluh empat stesen kajian di sepanjang persisiran pantai Sarawak, di mana ianya mewakili empat puluh tujuh genera dan dua puluh famili. Kesemua spesies yang telah dikenalpasti ini merupakan yang pertama kali direkodkan di sepanjang persisiran pantai Sarawak. Spesies yang dijumpai dikelaskan mengikut habitat (jenis sedimen) di stesen kajian. Kesemua spesies dilukis, dihurai dan dibincangkan mengikut kaedah taksonomi. Kunci identifikasi bergambar untuk kesemua spesies yang telah dikenalpasti di sepanjang persisiran pantai Sarawak telah dihasilkan. Stesen S20 mempunyai jumlah spesies nematod marin yang paling banyak (26 spesies) diikuti oleh S16 dengan 17 spesies. Famili Xyalidae merupakan famili yang paling pelbagai dengan 18 spesies diikuti oleh Famili Desmodoridae (13 spesies).