

## Intisari

### Prevalensi dan Intensitas Infeksi Larva *Anisakis* pada *Sardinella* spp. di Perairan Pantai Kabupaten Bantul

*Anisakis* merupakan salah satu jenis parasit nematoda yang biasa ditemukan menginfeksi berbagai organisme laut. Penelitian ini bertujuan untuk mengetahui prevalensi, intensitas rata-rata, organ target infeksi, serta identifikasi larva *Anisakis* yang ditemukan pada *Sardinella* spp. di perairan Pantai Kabupaten Bantul. Pengambilan sampel dilakukan di Pantai Depok pada bulan September-Desember 2023, sebanyak 227 ekor *S. gibbosa*, 38 ekor *S. lemuru*, dan 63 ekor *S. longiceps*. Setiap sampel diukur panjang dan beratnya, kemudian dibedah untuk diamati infeksi *Anisakis* pada rongga tubuh, saluran pencernaan, gonad, hati dan otot ikan. *Anisakis* yang diperoleh dikoleksi untuk identifikasi morfologi dan molekuler. Identifikasi morfologi dilakukan dengan pengamatan warna, bentuk serta pengukuran panjang cacing. Identifikasi molekuler dilakukan dengan metode PCR dan *Direct sequencing* menggunakan gen target ITS rDNA. Hasil penelitian menunjukkan bahwa *Anisakis* hanya menginfeksi *S. gibbosa*, sedangkan *S. lemuru* dan *S. longiceps* bebas dari infeksi *Anisakis*. Nilai prevalensi *S. gibbosa* mencapai 35,24%, sedangkan intensitas rata-ratanya sebanyak 4,59 larva/individu. *Anisakis* banyak ditemukan menginfeksi rongga tubuh *S. gibbosa* (55,86%) dan sedikit ditemukan pada organ lainnya. Hasil identifikasi morfologi dan molekuler menunjukkan bahwa *Anisakis* yang menginfeksi *S. gibbosa* merupakan *Anisakis* tipe I (*A. typica*) yang ditunjukkan adanya *mucron* pada bagian posterior. Informasi mengenai infeksi larva *Anisakis* berguna sebagai acuan dalam penanganan dan pengolahan produk perikanan, penilaian risiko kesehatan manusia, dan pengembangan nematoda sebagai *biological tags*.

Kata kunci: *A. typica*, ITS rDNA, *mucron*, nematoda, *S. gibbosa*

### *Abstrak*

#### Prevalence and Intensity of *Anisakis* Larvae Infection in *Sardinella* spp. in Coastal Waters of Bantul Regency

*Anisakis* is a type of nematode parasite commonly found infecting various marine organisms. This study aims to determine the prevalence, average intensity, target organ of infection, and identification of *Anisakis* found in *Sardinella* spp. in the coastal waters of Bantul Regency. Sampling was conducted at Depok Beach in September-December 2023, totaling 227 *S. gibbosa*, 38 *S. lemuru*, and 63 *S. longiceps*. Each sample was measured in length and weight, then dissected to observe *Anisakis* infection in the body cavity, digestive tract, gonads, liver and fish meat. *Anisakis* obtained were collected for morphological and molecular identification. Morphological identification is carried out by observing color, the shape, and measuring the length of the worm. Molecular identification using the PCR and *Direct sequencing* method with ITS rDNA target gene. The results showed that *Anisakis* only infected *S. gibbosa*, while *S. lemuru* and *S. longiceps* were free from *Anisakis* infection. The prevalence value of *S. gibbosa* reached 35.24%, while the average intensity was 4.59 larvae/individual. *Anisakis* was mostly found to infect the body cavity of *S. gibbosa* (55.86%) and slightly found in other organs. Morphological and molecular identification results showed that the *Anisakis* infecting *S. gibbosa* was type I *Anisakis* (*A. typica*) as indicated by the presence of mucron on the posterior. Information on *Anisakis* infection is useful as a reference in handling and processing fishery products, human health risk assessment, and development of nematodes as *biological tags*.

**Keywords:** *A. typica*, ITS rDNA, *mucron*, nematode, *S. gibbosa*