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Czech J. Food Sci.

**Giarratana F.,
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***Gymnorhynchus gigas*
in *Lepidopus caudatus*
(Actinopterygii:
Perciformes:
Trichiuridae):
prevalence and related
effects on fish quality**

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We evaluated the effects of *Gymnorhynchus gigas* on the freshness and hygienic quality of *Lepidopus caudatus*. Total Volatile Basic Nitrogen (TVB-N), Trimethylamine Nitrogen (TMA-N), as well as Specific Spoilage Organisms (SSOs) are the most important freshness indicators in fish. Our study was carried-out on 65 specimens of *L. caudatus* kept in ice and stored at 2° C for different period of time. The microbiological charge of SSOs

recovered on a portion of parasitised muscles (MP) was compared with those recovered on portions of parasite-free muscles (M). The contents of TVB-N and TMA-N on MP, M, and *G. gigas* larva/ae were measured using the Conway microdiffusion method. High prevalence (72.31%) of *G. gigas* in the specimens of *L. caudatus* from the Mediterranean sea was observed. No statistically significant differences ($P < 0.05$) between M and MP were found during storage. However, massive infestation of *G. gigas* on the muscle of the silver scabbardfish could negatively influence TVB-N values, without compromising the sensorial characteristic of fish.

Keywords:

Trypanorhyncha; TVB-N; TMA-N; muscle parasite; specific spoilage organisms

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