



## Redescription of *Lophiodes infrabrunneus* Smith and Radcliffe, 1912, a senior synonym of *L. abdituspinus* Ni, Wu and Li, 1990 (Lophiiformes: Lophiidae)

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### Abstract

*Lophiodes infrabrunneus* Smith and Radcliffe, 1912 is redescribed on the basis of all known specimens. The species is redefined as: a species of *Lophiodes* with three dorsal spines, postcephalic spines absent; illicium relatively short, 13.3–24.2% of SL; second and third dorsal spine relatively short, 12.2–21.2% and 9.1–20.6% of SL respectively, a narrow leaf-like flap, and tendrils present on second and third dorsal spine. *Lophiodes abdituspinus* is a junior synonym of *L. infrabrunneus* based on examination of type series of both species. *L. infrabrunneus* is distributed from Japan, to the Timor Sea, Salomon Is. and northwestern Australia, in eastern Indian Ocean where it occurs in depths between 208–1412 m.

**Key words:** Lophiidae, anglerfish, monkfish, taxonomy, synonymy

### Introduction

Smith and Radcliffe (1912) described *Lophiodes infrabrunneus* based on 11 specimens collected from deep-waters off the Philippines. It was unique in the absence of postcephalic dorsal spines and a relatively short third dorsal spine, about 8.1% in total length in the holotype according to the original description. Caruso (1981) reviewed the genus and set apart *L. infrabrunneus* from his three species groups, *Lophiodes naresi*, *L. caulinaris*, and *L. mutilus*. He concluded that *L. infrabrunneus* can be distinguished from all other congeners by having a very short third dorsal spine (2.5–7.3% of SL vs. 17.1–64.0% of SL in all other *Lophiodes*), postcephalic portion without spine and combination of other characters.

Subsequently, Ni and Xu (1988) recorded a single specimen of *L. infrabrunneus* collected from the East China Sea. Ni *et al.* (1990) described a new species, *L. abdituspinus*, resembling *L. infrabrunneus*, from a single specimen collected from the South China Sea. However, its validity was uncertain. In the original description, Ni *et al.* (1990) listed only two characters to distinguish the new species from *L. infrabrunneus*: humeral spine simple and third dorsal spine short and imbedded in skin. We examined the types of both *L. infrabrunneus* (only 8 of 10 paratypes were found at the USNM) and *L. abdituspinus*, and 13 specimens without postcephalic spine obtained more recently. However, all have a relatively long third dorsal spine. This difference led us to re-examine the type series of *L. infrabrunneus* and redefine the diagnostic characters for this species. Such examinations revealed that the species are identical, with *L. infrabrunneus* being the senior synonym of *L. abdituspinus*.