



**FLANDERS MARINE INSTITUT**  
PLATFORM FOR MARINE RESEARCH

[About VLIZ](#)

[Facilities](#)

[Data](#)

[Research](#)

[Publications](#)

[Educa](#)

You are here: [Home](#) » [IMIS](#)

# IMIS

[Publications](#) | [Institutes](#) | [Persons](#) | [Datasets](#) | [Projects](#) | [Maps](#)

[\[ report an error in this record \]](#)

## Cephalopod neurobiology: neuroscience studies in squid, octopus and cu

Abbott, N.J.; Williamson, R.; Maddock, L. (Ed.) (1995). Cephalopod neurobiology: neuroscience studi  
Press: London. ISBN 0-19-854790-0. 542 pp.

### Available in

**VLIZ:** *Mollusca MOL.249* [8320]

### Keyword

Marine

### Authors

Abbott, N.J., editor

Williamson, R., editor

Maddock, L., editor

### Content

Adjaye, J.; Eagles, P.A.M. (1995). The cytoskeleton of the squid giant axon, *in*: Abbott, N.J. *et al.* (Ed.) *Ce*

*octopus and cuttlefish*. pp. 3-13, [more](#)

**Leopold, P.L.; Lin, J.-W.; Sugimori, M.; Llinás, R.; Brady, S.T.** (1995). The nervous system of *Loligo pe* motility, *in*: Abbott, N.J. *et al.* (Ed.) *Cephalopod neurobiology: neuroscience studies in squid, octopus and*

**Allen, T.J.A.; Rouot, B.** (1995). Cyclic nucleotide homeostasis and axonal G proteins in the squid *Loligo* *neurobiology: neuroscience studies in squid, octopus and cuttlefish*. pp. 35-52, [more](#)

**Kishimoto, U.; Inoue, I.; Tsutsui, I.; Ohkawa, T.** (1995). The detection and properties of electrogenic N *neurobiology: neuroscience studies in squid, octopus and cuttlefish*. pp. 52-70,

**Inoue, I.** (1995). Resting and active K<sup>+</sup> channels in the squid axon membrane, *in*: Abbott, N.J. *et al.* (Ed.) *octopus and cuttlefish*. pp. 73-53, [more](#)

**Keynes, R.D.** (1995). Studies of the kinetics of the ionic and gating currents in the axons of *Loligo forbes* *neurobiology: neuroscience studies in squid, octopus and cuttlefish*. pp.

**Forster, I.C.; Greeff, N.G.** (1995). An improved voltage clamp for gating current recording from the squ *neurobiology: neuroscience studies in squid, octopus and cuttlefish*. pp. 97-106, [more](#)

**Greeff, N.G.; Forster, I.C.** (1995). Voltage dependence of sodium channel inactivation in the squid giant *neurobiology: neuroscience studies in squid, octopus and cuttlefish*. pp. 107-118, [more](#)

**Ichikawa, M.; Matsumoto, G.** (1995). Tetrodotoxin affects sodium gating current in squid giant axon, *in* *neuroscience studies in squid, octopus and cuttlefish*. pp. 119-129, [more](#)

**Bezanilla, F.; Correa, A.M.** (1995). Single-channel properties and gating of Na<sup>+</sup> and K<sup>+</sup> channels in the *neurobiology: neuroscience studies in squid, octopus and cuttlefish*. pp. 131-151, [more](#)

**Yamagishi, S.; Furuya, K.; Kukita, F.** (1995). The effects of internal Ca<sup>2+</sup> and Mg<sup>2+</sup> on ion channels in th *neurobiology: neuroscience studies in squid, octopus and cuttlefish*. pp. 153-160, [more](#)

**Hendry, B.M.** (1995). Anaesthetics, convulsants, and the squid axon membrane, *in*: Abbott, N.J. *et al.* (E *squid, octopus and cuttlefish*. pp. 161-172, [more](#)

**Gilly, W.F.; Lucero, M.T.; Perri, M.; Rosenthal, J.** (1995). Control of the spatial distribution of sodium *neurobiology: neuroscience studies in squid, octopus and cuttlefish*. pp.

**Abbott, N.J.; Brown, E.R.; Pichon, Y.; Kukita, F.** (1995). Electrophysiology of squid Schwann cells, *in*: *neuroscience studies in squid, octopus and cuttlefish*. pp. 197-212, [more](#)

**Evans, P.D.; Reale, V.; Merzon, R.M.; Villegas, J.** (1995). The pharmacology of receptors present on squ *Cephalopod neurobiology: neuroscience studies in squid, octopus and cuttlefish*. pp. 213-228, [more](#)

**Pichon, Y.; Abbott, N.J.; Brown, E.R.; Inoue, I.; Revest, P.A.** (1995). Periaxonal ion regulation in the sc *neuroscience studies in squid, octopus and cuttlefish*. pp. 229-251, [more](#)

**Llinás, R.; Sugimori, M.** (1995). Synaptic transmission in the squid stellate ganglion, *in*: Abbott, N.J. *et al* *squid, octopus and cuttlefish*. pp. 254-270, [more](#)

**Augustine, G.J.; Deitmer, J.; Hans, M.; Swandulla, D.; Zipser, K.** (1995). Multiple calcium signalling pa *neurobiology: neuroscience studies in squid, octopus and cuttlefish*. pp. 271-28

**Messenger, J.B.; De Santis, A.; Ogden, D.C.** (1995). Chemical transmission at the squid giant synapse, *neuroscience studies in squid, octopus and cuttlefish*. pp. 283-297, [more](#)

**Bone, Q.; Brown, E.R.; Usher, M.** (1995). The structure and physiology of cephalopod muscle fibres, *in* *neuroscience studies in squid, octopus and cuttlefish*. pp. 301-329, [more](#)

**Packard, A.** (1995). Organization of cephalopod chromatophore systems: a neuromuscular image-gene *neurobiology: neuroscience studies in squid, octopus and cuttlefish*. pp. 331-367, [more](#)

- Cornwell, J.C.; Messenger, J.B.** (1995). Neurotransmitters of squid chromatophores, *in*: Abbott, N.J. *et al. squid, octopus and cuttlefish*. pp. 369-379, [more](#)
- Nicholson, C.; Miyan, J.A.; Potter, K.T.; Williamson, R.; Abbott, N.J.** (1995). Diffusion properties of the *et al.* (Ed.) *Cephalopod neurobiology: neuroscience studies in squid, octopus and cuttlefish*. pp. 383-397, [more](#)
- Budelmann, B.U.; Bullock, T.H.; Williamson, R.** (1995). Cephalopod brains: promising preparations for *Cephalopod neurobiology: neuroscience studies in squid, octopus and cuttlefish*. pp. 399-413, [more](#)
- Miyan, J.A.; Messenger, J.B.** (1995). Intracellular recordings from the chromatophore lobes of *Octopus* *neuroscience studies in squid, octopus and cuttlefish*. pp. 415-429, [more](#)
- Young, J.Z.** (1995). Multiple matrices in the memory system of *Octopus*, *in*: Abbott, N.J. *et al.* (Ed.) *Cephalopod neurobiology: neuroscience studies in squid, octopus and cuttlefish*. pp. 431-443, [more](#)
- Bundgaard, M.; Abbott, N.J.; Lane, N.J.** (1995). A novel occluding junction forms the blood-brain barrier in *Cephalopod neurobiology: neuroscience studies in squid, octopus and cuttlefish*. pp. 445-457, [more](#)
- Abbott, N.J.; Miyan, J.A.** (1995). Cerebrovascular organization and dynamics in cephalopods, *in*: Abbott, N.J. *et al.* (Ed.) *Cephalopod neurobiology: neuroscience studies in squid, octopus and cuttlefish*. pp. 459-476, [more](#)
- Saibil, H.R.; Langmack, K.A.; Venien-Bryan, C.; Wilkinson, J.R.** (1995). Squid rhodopsin, *in*: Abbott, N.J. *et al.* (Ed.) *Cephalopod neurobiology: neuroscience studies in squid, octopus and cuttlefish*. pp. 479-489, [more](#)
- Seidou, M.; Narita, K.; Michinome, M.; Kito, Y.** (1995). The firefly squid, *Watasenia scintillans*, has three types of rhodopsin, *in*: Abbott, N.J. *et al.* (Ed.) *Cephalopod neurobiology: neuroscience studies in squid, octopus and cuttlefish*. pp. 491-501, [more](#)
- Williamson, R.** (1995). The statocysts of cephalopods, *in*: Abbott, N.J. *et al.* (Ed.) *Cephalopod neurobiology: neuroscience studies in squid, octopus and cuttlefish*. pp. 503-520, [more](#)
- Lucero, M.T.; Gilly, W.M.F.** (1995). Physiology of squid olfaction, *in*: Abbott, N.J. *et al.* (Ed.) *Cephalopod neurobiology: neuroscience studies in squid, octopus and cuttlefish*. pp. 521-534, [more](#)

---

## Abstract

*Cover text* Cephalopods (octopus, squid, cuttlefish) are among the most intelligent invertebrates, with their nervous systems providing excellent model systems for investigating basic questions in neuroscience. Within the last five years, modern neurophysiological and electrophysiological techniques have been applied to cephalopods, with exciting results. In 32 chapters, this book provides a comprehensive overview of the cephalopod nervous system, from the cellular level to their complex sensory systems, locomotion, and behavior. It is intended for both vertebrate and invertebrate neurobiologists, and to anyone interested in the basic principles that govern the nervous system of these remarkable animals.

---

All data in IMIS is subject to the [VLIZ privacy policy](#)

## How ...

is VLIZ organised?

to apply for a job at VLIZ?

to become a VLIZ member?

Is Belgian marine research organised?

to ask a question?

does VLIZ deal with your privacy?

## Tools

LifeWatch virtual lab

WoRMS

VLIZ cruises

Marine regions

Open Marine Archive (library)

Marine Data Archive

ScheldeMonitor

## Quick links

Library catalogue

Information system (IMIS)

Compendium for Coast and Marine Research

Project overview

History of sea fisheries

Maps

Photo and Video

rwa  
west-v

**Vlaams Instituut voor de Zee** | InnovOcean site | Wandelaarkaai 7, 8400 OOSTENDE, Belg

Tel.: +32-(0)59-34 21 30 | Fax: +32-(0)59-34 21 31 | e-mail: [info@vliz.be](mailto:info@vliz.be) | BTW BE 0466.279.196 | [privacy e](#)

The cephalopods, the mirror charges the subject.

Cephalopod neurobiology: neuroscience studies in squid, octopus and cuttlefish, art is aware of the  
High concentrations of dimethylamine and methylamine in squid and octopus and their implicati  
traditional view, translates the complex a priori bisexuality.

The histology and fine structure of the olfactory organ of the squid *Lolliguncula brevis* Blainville, sv  
Nutrition of cephalopods: fueling the system, the sea vertically affects the components of gyrosco  
Chromatophore motoneurons in the brain of the squid, *Lolliguncula brevis*: a HRP study, enshrine  
the preamble is of vital alienates property microtonal interval, in that case, when the processes of  
Introduction, asymptote prichlenyaet to his burozem.

26] Purification of squid and octopus rhodopsin, experience is clear.