

Look Up Full Text

Full Text from Publisher

Find PDF

Export...

Add to Marked List

◀ 1 of 1 ▶

## Gonadosomatic index-based size at first sexual maturity of male and female *Amblygaster clupeioides* (Bleeker, 1849) (Clupeidae) on the east coast of the Malaysian peninsular

By: Rahman, MM (Rahman, M. M.)<sup>[1]</sup>

JOURNAL OF APPLIED ICHTHYOLOGY  
 Volume: 33 Issue: 3 Pages: 579-582  
 DOI: 10.1111/jai.13252  
 Published: JUN 2017  
 Document Type: Article  
[View Journal Impact](#)

### Abstract

Size at first sexual maturity and condition of *Amblygaster clupeioides* were determined in a population at the Malaysian east coast. A total of 887 specimens were collected from commercial fishing vessels between March and November 2012. A random sample was taken each time to avoid bias in the cohort sampling. Size at first sexual maturity was determined by the relationship between the total length and gonadosomatic index (GSI). Similarly, the relationship between the condition factor and GSI was applied to determine the condition at first sexual maturity. The sex ratio was close to 1:1. The total length at first sexual maturity of both males and females were at around 18cm. Males with a GSI of 3.2% and females with a GSI of 6.5% were mature, having condition factors of 0.90 and 0.93, respectively. Based on these results the minimum permissible capture size was identified. This study establishes a strong need for regular and continued monitoring of the changes in fish size at first sexual maturity.

### Keywords

KeyWords Plus: CARP CYPRINUS-CARPIO; GROWTH; PONDS; ABUNDANCE; FABRICIUS; STOCKING

### Author Information

Reprint Address: Rahman, MM (reprint author)

Int Islamic Univ Malaysia, Dept Marine Sci, Fac Kulliyyah Sci, Kuantan, Pahang, Malaysia.

### Addresses:

[ 1 ] Int Islamic Univ Malaysia, Dept Marine Sci, Fac Kulliyyah Sci, Kuantan, Pahang, Malaysia

E-mail Addresses: [mustafiz@iium.edu.my](mailto:mustafiz@iium.edu.my)

### Publisher

WILEY, 111 RIVER ST, HOBOKEN 07030-5774, NJ USA

### Journal Information

Impact Factor: [Journal Citation Reports](#)

### Categories / Classification

Research Areas: Fisheries; Marine &amp; Freshwater Biology

Web of Science Categories: Fisheries; Marine &amp; Freshwater Biology

[See more data fields](#)

### Citation Network

In Web of Science Core Collection

1

Times Cited

Create Citation Alert

### All Times Cited Counts

3 in All Databases

[See more counts](#)

14

Cited References

[View Related Records](#)

### Most recently cited by:

Rahman, M. M.; Yunus, Kamaruzzaman; Alenezi, Raslan.  
[Ethical Considerations in Exploiting, Culturing and Killing Fish towards Animal Rights in Islam.](#)  
 INTERNATIONAL MEDICAL JOURNAL MALAYSIA (2018)

[View All](#)

### Use in Web of Science

Web of Science Usage Count

1

Last 180 Days

3

Since 2013

[Learn more](#)

### This record is from:

Web of Science Core Collection

- Science Citation Index Expanded

### Suggest a correction

If you would like to improve the quality of the data in this record, please [suggest a correction](#).

◀ 1 of 1 ▶

## Cited References: 14

Showing 14 of 14 [View All in Cited References page](#)

(from Web of Science Core Collection)

- 
1. **SPAWNING PATTERN OF INDIAN OIL SARDINE, *Sardinella longiceps* Valenciennes, 1847 OF OMAN SEA, MUSCAT, SULTANATE OF OMAN.** Times Cited: **3**  
By: Al-Anbouri, Ibrahim Said; Ambak, Mohd Azmi; Haleem, Shama Zaki Abdul  
Journal of FisheriesSciences.com Volume: 7 Issue: 1 Pages: 72-78 Published: 2013
  2. **Relative Abundance and Growth of Male and Female *Nemipterus furcosus* Population** Times Cited: **4**  
By: Amira, F. S.; Rahman, M. M.; Kamaruzzaman, B. Y.; et al.  
SAINS MALAYSIANA Volume: 45 Issue: 1 Pages: 79-86 Published: JAN 2016
  3. **Relative Growth of *Harpiosquilla raphidea* (Fabricius, 1798) (Crustacea: Stomatopoda) Male and Female Populations** Times Cited: **6**  
By: Antony, P. J.; Rahman, M. M.; Rajkumar, M.; et al.  
SAINS MALAYSIANA Volume: 43 Issue: 9 Pages: 1305-1310 Published: SEP 2014
  4. **Cube law, condition factor and weight-length relationships: history, meta-analysis and recommendations** Times Cited: **1,395**  
By: Froese, R.  
JOURNAL OF APPLIED ICHTHYOLOGY Volume: 22 Issue: 4 Pages: 241-253 Published: AUG 2006
  5. **Length-weight relationship and condition factor of wild, grow-out and 'loose-shell affected' giant tiger shrimp, *Penaeus monodon* (Fabricius, 1798) (Decapoda: Penaeidae)** Times Cited: **9**  
By: Gopalakrishnan, A.; Rajkumar, M.; Rahman, M. M.; et al.  
JOURNAL OF APPLIED ICHTHYOLOGY Volume: 30 Issue: 1 Pages: 251-253 Published: FEB 2014
  6. Title: [not available] Times Cited: **422**  
By: JENNINGS, S.; KAISER, M. J.; REYNOLDS, J. D.  
Marine fisheries ecology Published: 2001
  7. **Effects of Stocking Density on Survival, Growth and Production of Thai Climbing Perch (*Anabas testudineus*) under Fed Ponds** Times Cited: **12**  
By: Khatune-Jannat, Most; Rahman, Mohammad Mustafizur; Bashar, Md Abul; et al.  
SAINS MALAYSIANA Volume: 41 Issue: 10 Pages: 1205-1210 Published: OCT 2012
  8. **Maturity and spawning pattern of *Sardinella aurita* in relation to water temperature and zooplankton abundance off Ghana, West Africa** Times Cited: **19**  
By: Quatey, SNK; Maravelias, CD  
JOURNAL OF APPLIED ICHTHYOLOGY-ZEITSCHRIFT FUR ANGEWANDTE ICHTHYOLOGIE Volume: 15 Issue: 2 Pages: 63-69 Published: MAY 1999
  9. **Effects of food type on diel behaviours of common carp *Cyprinus carpio* in simulated aquaculture pond conditions** Times Cited: **19**  
By: Rahman, M. M.; Meyer, C. G.  
JOURNAL OF FISH BIOLOGY Volume: 74 Issue: 10 Pages: 2269-2278 Published: JUN 2009
  10. **Effects of intra- and interspecific competition on diet, growth and behaviour of *Labeo calbasu* (Hamilton) and *Cirrhinus cirrhosus* (Bloch)** Times Cited: **20**  
By: Rahman, Mohammad Mustafizur; Verdegem, Marc  
APPLIED ANIMAL BEHAVIOUR SCIENCE Volume: 128 Issue: 1-4 Pages: 103-108 Published: DEC 2010
  11. **Effects of tilapia (*Oreochromis niloticus* L.) stocking and artificial feeding on water quality and production in rohu-common carp bi-culture ponds** Times Cited: **18**  
By: Rahman, Mohammad Mustafizur; Verdegem, Marc; Wahab, Md Abdu  
AQUACULTURE RESEARCH Volume: 39 Issue: 15 Pages: 1579-1587 Published: NOV 4 2008
  12. **Ontogenetic shift in dietary preference and low dietary overlap in rohu (*Labeo rohita*) and common carp (*Cyprinus carpio*) in semi-intensive polyculture ponds** Times Cited: **23**  
By: Rahman, Mohammad Mustafizur; Hossain, Md Yeamin; Jo, Qtae; et al.  
ICHTHYOLOGICAL RESEARCH Volume: 56 Issue: 1 Pages: 28-36 Published: JAN 2009
  13. **EFFECT OF CHOLYMBI ON GROWTH, PROXIMATE COMPOSITION, AND DIGESTIVE ENZYME ACTIVITY OF FINGERLINGS OF LONG WHISKERED CATFISH, *MYSTUS GULIO* (ACTINOPTERYGII: SILURIFORMES: BAGRIDAE)** Times Cited: **11**  
By: Rajkumar, Mayalagu; Rahman, Mohammad M.; Prabha, Arockiasamy Reni; et al.  
ACTA ICHTHYOLOGICA ET PISCATORIA Volume: 43 Issue: 1 Pages: 15-20 Published: 2013

14. **Age and growth**

**Times Cited: 90**

By: Tesch, F. W.

Methods for assessment of fish production in fresh waters Pages: 99-130 Published: 1971

Publisher: Blackwell Scientific Publications, Oxford

**Showing 14 of 14**

[View All in Cited References page](#)

**Clarivate**

Accelerating innovation

© 2019 Clarivate

[Copyright notice](#)

[Terms of use](#)

[Privacy statement](#)

[Cookie policy](#)

[Sign up for the Web of Science newsletter](#)

[Follow us](#)

