

ORIGINAL ARTICLES

Fisheries

Spatial and temporal variation in the distribution of juvenile southern bluefin tuna *Thunnus maccoyii*: implication for precise estimation of recruitment abundance indices

K. Fujioka · R. Kawabe · A.J. Hobday · Y. Takao · K. Miyashita · O. Sakai · T. Itoh 403

Biology

The role of flatfishes in the organization and structure of the eastern Bering Sea ecosystem

S.I. Lee · K.Y. Aydin · P.D. Spencer · T.K. Wilderbuer · C.I. Zhang 411

Erratum 435

Uptake of dissolved free amino acids by spiny lobster *Panulirus japonicus* phyllosoma larvae

S.C. Söylemez · K. Murakami · C.A. Strüßmann · M. Yokota · S. Watanabe 437

Age and growth during immature stages of the mangrove red snapper *Lutjanus argentimaculatus* in waters around Ishigaki Island, southern Japan

H. Yamada 445

Effect of salinity on strontium:calcium ratios in the otoliths of Sakhalin taimen, *Hucho perryi*

T. Arai 451

Feeding behavior under dark conditions in larvae of sutchi catfish *Pangasianodon hypophthalmus*

Y. Mukai · A.D. Tuzan · L.S. Lim · S. Yahaya 457

Aquaculture

Cloning and nutritional regulation of polyunsaturated fatty acid desaturase and elongase of a marine teleost, the nibe croaker *Nibea mitsukurii*

Y. Yamamoto · N. Kabeya · Y. Takeuchi · Alimuddin · Y. Haga · S. Satoh · T. Takeuchi · G. Yoshizaki 463

Quantitative estimation of the predation of marine ranched striped jack *Pseudocaranx dentex* by herons

H. Nibe · N. Suzuki · K. Sakiyama · S. Morioka · A. Ohno 473

Enhancement of *Penaeus monodon* shrimp postlarvae growth and survival without water exchange using marine *Bacillus pumilus* and periphytic microalgae

S. Banerjee · H. Khatoun · M. Shariff · F. Md. Yusoff 481

Immune response of largemouth bass, *Micropterus salmoides*, to whole cells of different *Nocardia seriolae* strains

Y. Shimahara · Y.-F. Huang · M.-A. Tsai · P.-C. Wang · S.-C. Chen 489

Effect of cadmium binding form on rabbit aminolevulinic acid dehydratase in high molecular weight fraction of rainbow trout liver

H. Jia · H. Ren · H. Endo · T. Hayashi 495

Environment

Interspecific variations in age and size at settlement of 8 emperor fishes (Lethrinidae) at the southern Ryukyu Islands, Japan

Y. Nakamura · T. Shibuno · N. Suzuki · J. Nakamori · K. Kanashiro · Y. Watanabe 503

Chemistry and Biochemistry

Molecular cloning and tissue transcriptional analysis of a novel gene encoding proteasome activator PA28- α from common carp (*Cyprinus carpio* L.)

Y. Tan · Q. Lu · L. Li · Y. Zhu · B. Fu 511

Food Science and Technology

Multiple taste functions of the umami substances in muscle extracts of yellowtail and bastard halibut

Y. Maruji · M. Shimizu · M. Murata · M. Ando · M. Sakaguchi · T. Hirata 521

