

# **Proceedings**

## **Papers Presented at the 40th Annual Meeting in Sapporo, October 6–8, 2007**

### **Taxonomy and Morphology**

An undescribed species of the genus *Onigocia* collected from the Coral and Tasman Seas. *Hisashi Imamura*

Validity of a cottid fish, *Stelgistrum mororane* as the genus *Icelus*. *Osamu Tsuruoka and Mamoru Yabe*

On the appropriate common Japanese names for Pacific and Atlantic Bluefin Tunas. *Fumihito Muto and Harumi Yamada*

An undescribed genus and species of the Stichaeidae with elongated paired fins, from the northern Sea of Japan. *Gento Shinohara and Mamoru Yabe*

Taxonomic review of the species of *Kyphosus*, Kyphosidae, from the eastern Pacific and Atlantic. *Keiichi Sakai and Tetsuji Nakabo*

Taxonomic review of the genus *Pleuronichthys* from the East Asia. *Shotaro Suzuki, Takatoshi Kawashima, and Tetsuji Nakabo*

An undescribed species of *Samariscus* (Samaridae, Pleuronectiformes) collected from New Caledonia. *Toshio Kawai, Kunio Amaoka, and Bernard Seret*

Two New Batfishes (Lophiiformes: Ogcocephalidae) from the West Pacific Ocean. *Hsuan-Ching Ho, Hiromitsu Endo, Kazunobu Sakamaki, and Kwang-Tsao Shao*

An undescribed species of the genus *Stolephorus* (Engraulidae) from North Sulawesi, Indonesia. *Seishi Kimura, Kosuke Hori, and Koichi Shibukawa*

Discovery of a crucian carp with the peculiar morphology from the Yufutsu Moor, Hokkaido, Japan. *Takehiko Ito, Tomohiko Fujita, and Kazumi Hosoya*

Cephalic anatomy of Formosan stripe dace *Candidia barbata*. *Toshihiko Morimune, Toyoaki Fukuda, Hiroshi Ashiya, and Kazumi Hosoya*

Comparative study on the intestines in the species of the cyprinid subfamily Acheilognathinae.  
Hitomi Yamano and Kazumi Hosoya

## Phylogeny and Genetics

Genetic and morphological divergences between south population and north population of *Oryzias latipes* in Yura river drainage. Kouki Kume, Shinich Yoshida, and Kazumi Hosoya

Brain and cranial nerves of *Careproctus trachysoma* with special references to the lateral line system. Takeshi Kato, Naoyuki Yamamoto, and Hiroaki Somiya

*Acanthogobius* and *Tridentiger* (Teleostei: Gobiidae) in California compared to original Asian populations. Natascha Miljkovic

Development and evolution of the fish skeleton: impacts of developmental, molecular genetic and genomic investigation on our understanding of how the fish skeleton develops and evolves. Tsutomu Miyake

Population structure of sympatric markless and marked red-spotted masu salmon (*Oncorhynchus masou ishikawai*) inferred from AFLP analysis. Takuya Kondou, Hiroshi Takahashi, and Naohiko Takeshita

Genetic population structure of *Siganus spinus* and *S. guttatus* collected from Okinawan waters based on sequence analysis of the mitochondrial DNA control region. Kensuke Iwamoto, Akihiro Takemura, Tetsuo Yoshino, and Hideyuki Imai

Mitochondrial sequence data suggests several local populations of sandfish (*Arctoscopus japonicus*) around Hokkaido. Shigeru M. Shirai

Analysis of Ancient Parentage in Sexually Reproducing Tetraploid *Cobitis* loaches. Kenji Saitoh, Wei-Jen Chen, Jun Nakajima, and Richard L. Mayden

Genetic population structure in North-kanto population of *Lefua echigonia*. Hiroshi Aiki, Katsuhiko Takayama, Nobuhiro Mano, Hiroshi Komaki, and Hitomi

Polymorphism with highly divergent mitochondrial DNA lineages within *Pseudogobio esocinus* populations in central Honshu, Japan. Katsutoshi Watanabe, Koji Tominaga, Ryo Kakioka, and Seiichi Mori

Phylogeography of *Rhodeus atremius atremius* and *R. a. suigensis* in Japan. Takuya Miyake, Jun Nakajima, Norio Onikura, Shigetoyo Ikemoto, and Kouichi Kawamura

Introduced *Rhodeus sericeus amarus* in Northern Italy: cytogenetic characterization by several staining techniques and NORs polymorphism. *Angelo Libertini, Massimiliano Pampin, Luciana Sola, Annarita Rossi, Koji Iijima, and Takayoshi Ueda*

Diversification of T1R2-type putative taste receptor genes in threespine stickleback. *Yasuyuki Hashiguchi and Mutsumi Nishida*

GEDIMAP: A database for genetic diversity of the Japanese freshwater fishes. *Katsutoshi Watanabe, Yuichi Kano, Hiroshi Takahashi, and Ryo Kakioka*

Spino-occipital and spinal nerves in Tetraodontiformes. *Masanori Nakae and Kunio Sasaki*

Phylogenetic systematics of the family Sillaginidae. *Tatsuya Kaga, Hisashi Imamura, and Kazuhiro Nakaya*

Cypriniformes Tree of Life (CToL): A progress report based on whole mitogenome sequences. *Masaki Miya, Tetsuya Sado, Kenji Saitoh, and Mutsumi Nishida*

Molecular systematics of the deep-sea alepocephaliform fishes (Teleostei) based on whole mitogenome sequencesphylogeny of fishes. *Sébastien Lavoué, Masaki Miya, Jan Poulsen, Peter Møller, and Mutsumi Nishida*

## **Distribution and Fish Fauna**

Distribution of native medaka population in the Yamato River system in Nara Prefecture and introgression from himedaka (commercial orange-red colored strain). *Naoto Koyama, Kouki Kume, and Tadao Kitagawa*

Genetic research on distribution of Chinese muddy loach in Japan. *Hiroaki Maruyama, Yasushi Harada, and Tadao Kitagawa*

Shallow-sea fishes of the Shiretoko Peninsula, Hokkaido, Japan. *Mamoru Yabe, Takahiro Nobetsu, Yuko Kuzume, Osamu Tsuruoka, Fumihito Tashiro, Ryohei Sasahara, Mitsumi Yamamoto, Tomoyuki Yamanaka, and Tomoki Yahata*

Fish fauna of the Isuzu River, Mie Prefecture. *Tatsuya Sato, Taiga Yodo, and Seishi Kimura*

Racial group of amago salmon *Onchorhynchus masou ishikawae* originated in Izu Peninsula. *Naomasa Kawashima, Tetsuya Akutsu, and Tsuguhiro Shimomura*

Endangered crisis of a netted bitterling, *Acheilognathus typus* (Cyprinidae). *Hideki Sugiyama and Ryoichi Arai*

The present status of invasion of alien fish species in Inle Lake, Myanmar. *Musikasinthorn Prachya*

## **Physiology and Histology**

Aerial respiratory vasculatures in the intertidal air-breathing eel goby, *Odontamblyopus lacepedii* (Gobiidae: Amblyopinae). *Tomas Gonzales*

The sonic system of Priacanthidae. *Daisuke Nishihara, Atsushi Onuki, Naoyuki Yamamoto, and Hiroaki Somiya*

Sonic system of the ocellated waspfish, *Apistus carinatus* (Scorpaenidae, Scorpaeniformes). *Atsushi Onuki, Naoyuki Yamamoto, and Hiroaki*

L-kynurenine concentrations of rearing water in some salmonid species. *Hidenobu Yambe, Shohei Konno, Shoji Kitamura, Miho Yamada, Toshio Shikama, Hidefumi Nakamura, and Manpei Suzuki*

## **Ecology, Ethology, and Ontogeny**

Genetics of adaptive interspecific variation of feeding-related and swimming-related traits in two species of genus *Gnathopogon*. *Tomoyuki Kokita, Hisanori Tanaka, and Morihito Nemoto*

Genetic analysis on the northern-Florida subspecies hybrid population of the largemouth bass in Lake Biwa. *Taisuke Kuramoto*

Age and growth of the northern-Florida subspecies hybrid population of the largemouth bass in Lake Biwa. *Taiga Yodo, Takeshi Toyama, Taisuke Kuramoto, Yuto Wakahata, and Tadao Kitagawa*

Factors affecting the distribution of large mouth bass *Micropterus salmoides* and bluegill *Lepomis macrochirus* in Japanese dam reservoirs. *Tomonori Osugi, Munehiro Igarashi, Morikazu Nishita, and Kazuhiro Azami*

Effect of bluegill catch by an automatic fish capturing trap Girujigoku. *Osamu Katano, Hiroyuki Sakano, and Boris Verkov*

The origin of red-spotted masu salmon from Lake Biwa, and the situation of hybridization with Biwa salmon. *Masayuki Kuwahara, Kei'ichiro Iguchi, Hiroshi Takahashi, Takeshi Kikko, and*

*Seiji Kurumi*

Long-term population dynamics of charr isolated in a fragmented habitat. *Kei'ichiro Iguchi, Yoshihiro Sawamoto, Satoshi Kitano, Satoshi Yamamoto, Narumi Kono, Motokazu Kawanobe, Katsuhiro Kiso, Sayaka Ito, and Koji Maekawa*

Sex-biased movement in land-locked Japanese char *Salvelinus leucomaenis*. *Takuya Sato and Yasushi Harada*

Effects of alien pisces on native pisces in the Shikotsu Lake watershed. *Katsuya Misawa, Motohiro Kikuchi, Yuji Seo, Yutaka Harauchi, and Masahide Kaeriyama*

Habitat segregation of young of the year between native and nonnative salmonid species. *Koh Hasegawa and Koji Maekawa*

Development of sexual dimorphic male characters compared between anadromous and landlocked populations of ayu *Plecoglossus altivelis*. *Tetsuya Tsuruta and Kei'ichiro Iguchi*

Recruitment season and oceanic larval duration of the anadromous goby, *Sicyopterus japonicus* in the Ota River. *Wakayama Midori Iida, Shun Watanabe, and Katsumi Tsukamoto*

Diverse migratory histories of *Rhinogobius* spieces in Japan, revealed by otolith elemental analyses. *Takatoshi Tsunagawa and Takaomi Arai*

Conditions on spawning site of *Lefua echigonia* in the farm canal. *Fumio Higuchi*

Seasonal population dynamics and migration of *Lefua echigonia*. *Aya Enomoto, Hiroshi Aiki, Naoyuki Suguro, Hiroyuki Terada, Nobuhiro Mano, and Hitomi Hirose*

Spawning grounds and population structures of blue marlin *Makaira nigricans* in the central and western part of the North Pacific Ocean. *Tamaki Shimose, Kotaro Yokawa, Hirokazu Saito, and Katsunori Tachihara*

Tolerance to low temperature in *Repomucenus ornatipinnis* in southern Hokkaido, Japan. *Yoshiki Tanaka and Hiroyuki Munehara*

Distribution pattern of *Cobitis shikokuensis* in the Shigenobu River, Ehime Prefecture. *Ryota Kawanishi, Mikio Inoue, Yo Miyake, Takaaki Shimizu, and Motohiro Takagi*

Distribution of *Acheilognathus macropterus* in Lake Kasumigaura. *Atsushi Tominaga, Kazunori Arayama, and Hiromi Hanzawa*

Distribution and growth of *Oreochromis niloticus* established in Tabaru River on Yonaguni Island. *Tetsuroh Ishikawa, Tamaki Shimose, and Katsunori Tachihara*

Microhabitat characteristics of stream dwelling fishes using interstitial spaces—Night and day time

observations of habitat use in the experimental stream. *Shiro Sagawa, Hiroyoshi Yazaki, Junichi Akino, and Yuichi Kayaba*

Estimation of potential habitat for the alien mosquitofish, *Gambusia affinis*, using GIS in Tokushima Prefecture. *Yushu Tashiro, Yoichi Sato, and Yasunori Kozuki*

Are mangrove areas in the tropics nursery habitats for reef fishes? *Yohei Nakamura, Masahiro Horinouchi, Takuro Shibuno, Yoshiyuki Tanaka, Toshihiro Miyajima, Isao Koike, Hisashi Kurokura, and Mitsuhiro Sano*

An approach to assess the habitat conditions of Wandos in large rivers. *Junjiro Negishi, Shiro Sagawa, and Yuichi Kayaba*

Flexibility of reproductive tactics and its consequence in the brood parasitic fish, *Pungtungia herzi*. *Hideyuki Yamane, Katsutoshi Watanabe, and Yoshikazu Nagata*

Comparison of the duration and behavior of male parental care among 3 spawning types. *Masayuki Kumagai, Hideki Sugiyama, and Akira Goto*

Spawning time of pelagic eggs determined by feeding migration: interspecific difference among herbivorous parrotfishes. *Tetsuo Kuwamura*

Effects of rival male on ejaculation quantity in spawning of medaka. *Yukari Koike, Hiroyuki Munehara, and Yasunori Koya*

Reproductive ecology of the hole-nesting blenny, *Neoclinus bryope* (Blennioidei: Chaenopsidae), inhabiting intertidal rocky reef at Banda, Tateyama, Japan. *Atsunobu Murase and Tomoki Sunobe*

The reproductive behaviour of the grunt sculpin, *Rhamphocottus richardsonii*: Does the fish copulate or not? *Takuzo Abe, Nagaaki Sato, and Hiroyuki Munehara*

Reproduction and rearing of *Pseudochromis porphyreus* in the aquarium. *Shunsuke Okamura, Yoichi Tanaka, Kazuyuki Yamada, and Keisuke Takayanagi*

Comparison of distribution and feeding habits between *Nibea albiflora* and *Pennahia argentata* larvae and juveniles in the bottom part estuary of Ariake Bay. *Yuuta Yagi, Izumi Kinoshita, Hiroshi Ueda, Shinji Fujita, and Katsutoshi Kuno*

Reproductive biology and early life history of *Liposarcus disjunctivus* naturalized in Okinawa Island. *Nobuhiko Shimadzu and Katsunori Tachihara*

Taxonomy and distribution of pelagic juveniles of morids collected from off northeastern Japan. *Makoto Okamoto, Tsutomu Hattori, and Yuji Okazaki*

Larvae and juveniles of two *Nematalosa* species occurring in Nakagusuku Bay on Okinawa Island, southwestern Japan. *Masato Hori and Katsunori Tachihara*

Developmental morphology of the cyprinid *Parachela oxygastrooides*. *Tetsuya Sado and Seishi Kimura*

Distribution and migration of ayu larvae and juveniles in the coastal waters around the Kuji River estuary, Ibaraki Prefecture. *Kazunori Arayama, Noriyuki Sunoh, and Yukio Yamazaki*

Metamorphosis of the snake eel, *Muraenichthys gymnotus*. *Rie Taniyama, Noritaka Mochioka, Tamotsu Michishita, and Takeshi Kanda*

## Poster Presentations

Genetic and morphological comparison between two types of *Siganus corallinus*. *Kaoru Kuriwa, Mutsumi Nishida, and Keiichi Matsuura*

A species of the genus *Psenes* (Nomeidae) collected from the southern Kii Channel, Japan. *Ryu Doiuchi, Ryoichi Utsumi, and Tetsuji Nakabo*

Review of armoured searobins (Peristediidae) collected from off Sumatra and Java Islands, eastern Indian Ocean. *Toshio Kawai*

Review of the waspfish genus *Liocranium* (Scorpaeniformes: Tetrarogidae), with restoration of *L. pleurostigma*. *Hiroyuki Motomura, Peter R. Last, and Jeffrey W. Johnson*

An undescribed species of the scorpaenid genus *Setarches*. *Takeshi Yamakawa*

An undescribed species of the genus *Ptereleotris* (Ptereleotridae) from Tosa Bay, Japan. *Eri Katayama and Hiromitsu Endo*

Distribution of *Porocottus leptosomus* (Cottidae). *Youn Choi, Zhen-feng Yang, and Mamoru Yabe*

An undescribed species of *Stichaeopsis* (Stichaeidae) from Shiretoko Peninsula, Hokkaido, Japan. *Yuko Kuzume, Fumihito Takaya, and Mamoru Yabe*

Two morphological species groups in the genus *Julidochromis* in Lake Tanganyika (Perciformes, Cichlidae). *Fumihito Tashiro, Satoshi Awata, and Kazuhiro Nakaya*

An undescribed species of stichaeid fish from western North Pacific, off Miyagi prefecture and southern Hokkaido, Japan. *Tomoyuki Yamanaka, Takuzo Abe, and Mamoru Yabe*

Review of the genus *Pseudonezumia* (Macrouridae) from Japan. *Naohide Nakayama and Hiromitsu Endo*

Redefinition of cephalic sensory pores in Artediellin fishes (Perciformes: Cottidae) by comparison with bony elements. *Ryo Inagawa and Mamoru Yabe*

An undescribed triggerfish with distinctive round dark spots on the body collected from Hachijo-jima Island (Izu Island Group). *Keiichi Matsuura and Hiroshi Senou*

Taxonomy of *Apristurus macrorhynchus* and *A. macrostomus*. *Junro Kawauchi and Kazuhiro Nakaya*

Morphological and genetic characteristics of the *Careproctus rastrinus* species group (Family: Liparidae). *Yoshiaki Kai, Keiichi Sakai, and Tetsuji Nakabo*

Ontogenetic change in color pattern of *Spottobrotula mahodadi*. *Shin-ichiro Goeku and Tetsuo Yoshino*

An undescribed species of the genus *Enneapterygius* (Perciformes: Tripterygiidae) from Hachijo Island, the Izu Islands, Japan. *Masatoshi Meguro, Hiroshi Senou, Hiroshi Suzuki, Shigeru Harazaki, and Hiroyuki Motomura*

Taxonomy of the genus *Apristurus* collected from Australian waters. *Keiichi Sato, Kazuhiro Nakaya, Ryohei Sasahara, Junro Kawauchi, and Samuel P. Iglesias*

Genetic Difference between *Spratelloides atrofasciatus* and *S. gracilis* (Clupeiformes: Clupeidae). *Hiro Ishimori and Tetsuo Yoshino*

Taxonomic review of the *Feia dabra* species complex. *Keidou Uchino and Hiroshi Senou*

Undescribed species of gobioid fish, *Luciogobius* from Wakayama and Shizuoka. *Yuji Ikeda, Kazuaki Tamada, Takeo Yuba, and Masahiro Aizawa*

An undescribed species of the genus *Neoclinus* (Blennioidei: Chaenopsidae) from south coast of Boso Peninsula, Japan. *Atsunobu Murase, Masahiro Aizawa, and Tomoki Sunobe*

Diversity and host-specificity of copepods parasitic on tetraodontiform fish in Japan. *Daisuke Uyeno and Susumu Ohtsuka*

Complete mitochondrial DNA sequence of *Rhinogobius* sp. YB in Okinawa Island with notes on the genetic variation among the Ryukyu Islands. *Akira Kawaguchi, Mutsumi Nishida, and Tetsuo Yoshino*

Molecular phylogenetic analysis of the gobioid genus *Schindleria* from the central Pacific. *Takeshi Kon, Tetsuo Yoshino, and Mutsumi Nishida*

Coexistence of allopatrically-evolved haplotypes of *Zacco platypus* in Kanto plains. *Kenzi Takamura and Mayuko Nakahara*

Distribution and present status of non-indigenous fishes in northern Kyushu. *Jun Nakajima, Norio Onikura, Yoshihisa Kurita, Takahiko Mukai, and Youichi Kawaguchi*

A record of *Tribolodon nakamurai* from the Chikuma River in Nagano Pref., central Japan. *Satoshi*

*Kitano, Takenori Uehara, Hiroyuki Sakano, Jin Miyasaka, and Harumi Sakai*

Spatial variation of ichthyofauna in relation to environmental variables in intertidal pools in the Tama River estuary. *Kouki Kanou and Takeshi Yamane*

Occurrence patterns of fishes and environmental status of a canal in the inner part of Tokyo Bay. *Yusuke Miyazaki and Masato Moteki*

The distribution pattern of introduced fishes in creek networks along the Sea of Ariake, northern Kyushu Island, Japan. *Norio Onikura, Jun Nakajima, Katuhisa Eguchi, Takuya Miyake, Kouichi Kawamura, Takahiko Mukai, Youichi Kawaguchi, Takashi Nishida, Ryutei Inui, and Yoshihisa Kurita*

A poorly known *Acropoma lecornetti* Fourmanoir, 1988 (Perciformes: Acropomatidae) from off Okinawa Island, newly recorded from the North Pacific Ocean. *Yusuke Yamanoue and Minoru Toda*

The original scenery of the Naiko lagoons around Lake Biwa clarified by fish specimen inspection. *Tomohiko Fujita, Machiko Nishino, and Kazumi Hosoya*

Growth comparison of *Epinephelus malabaricus* by the principal component analysis. *Masaya Katoh, Reiko Fuseya, Hirofumi Karimata, and Motofumi Kimura*

Branching patterns of the mediolateral line nerve in the flatfishes (Pleuronectiformes). *Emi Fukuda and Kunio Sasaki*

Comparative analysis of orobranchial musculature among freshwater and marine stingrays' species. *Akemi Shibuya, Jansen Zuanon, Maria Araujo, and Sho Tanaka*

Developmental osteology of *Macroramphosus gracilis* (Macroramphosidae: Gasterosteiformes). *Yohko Takata, Emi Yoshida, and Kunio Sasaki*

Morphological and genetic comparisons of brackish half beak, *Hyporhamphus intermedius* in Japan. *Masami Hattori, Jun Nakajima, Taketo Tanaka, Jun Kaneto, Katsuhisa Eguchi, Takashi Nishida, Ryutei Inui, and Daisuke Sakano, Yutaka Banno, and Norio Onikura*

Morphology of *Poecilia* sp. (Poeciliidae) from Ibusuki, Kagoshima, Japan. *Mizuki Matsunuma, Hiroshi Suzuki, Mayumi Takayama, Yuriko Haraguchi, and Hiroyuki Motomura*

Morphological variations of *Pseudorasbora pumila pumila* in geographical and between-habitat. *Seiji Kimura, Hideki Sugiyama, Akira Ito, and Eri Miyazaki*

Morphological features around animal pole of eggs in the gobioid genus *Schindleria*. *Masako Hara, Takeshi Kon, Shigeo Nakamura, and Mutsumi Nishida*

Morphological characteristics and sexual maturity of nuclear transplants generated by

transplantation of blastula nuclei into noneunucleate eggs in the loach *Misgurnus anguillicaudatus*. *Daisuke Tanaka, Akito Takahashi, and Kouichi Ueno*

Recruitment pattern of chaetodontid juveniles into acroporid hermatypic corals in Tosa Bay. *Yasuyuki Ichiba, Kosaku Yamaoka, Tomonori Hirata, and Shiori Hirata*

Comparison in the growth of ayu between feeding on filamentous green macroalgae and on attached algae. *Toshiya Yamamoto, Osamu Mizuno, Kozo Nakane, Yoshiaki Fujii, and Kinji Oiwa*

Biological characteristics of *Spratelloides gracilis* sampled during a spawning time. *Naoko Takeuchi*

Seasonal migration of Hotoke loach (*Lefua echigonia*) in a spring water conservation pond. *Takumi Moriyama*

Life-history variation in the Pacific Ocean form of threespine stickleback, *Gasterosteus aculeatus* around the eastern Hokkaido Island. *Takefumi Kitamura and Akira Goto*

The arrangement, storage, and practical use of video collections in the natural history museum. *Hiroshi Kawase*

Life history of *Papillogobius reichei* and *Favonigobius gymnauchen* inhabiting in the riverine estuaries on Okinawa Island. *Megumi Kawahira, Masashi Kondo, Ken Maeda, and Katsunori Tachihara*

Age, growth and sex change of *Scolopsis monogramma* on Okinawa Island. *Yuichi Akita and Katsunori Tachihara*

Stable isotope ratios reveal polymorphism of migratory behavior in a Lake Biwa population of AYU. *Youichirou Sakai, Tomohiro Takeyama, Zin'ichi Karube, Ichiro Tayasu, and Noboru Okuda*

A causal model of habitat environment for *Hemigrammocyrpis rasborella* (Cypriniformes: Cyprinidae). *Yoichi Sato and Yushu Tashiro*

Reproductive cycle of *Mugilogobius abei* in the Ibi River, central Japan. *Fumiyo Takasaki, Ryo Ito, Takahiko Mukai, and Yasunori Koya*

Environment of habitat and annual changes in gonadal histology of *Lefua echigonia* in Gifu Prefecture. *Yasunori Koya and Tatsuzo Hosoe*

Distribution and microhabitat of *Pandaka* sp.A in Yukashigata Lake, Wakayama, Japan. *Kazuyo Kimura, Kentaro Hirashima, and Takahiko Mukai*

Spawning sites of several gobies in brackish areas of the Kitagawa River, central-eastern Kyushu

Island. *Norio Onikura, Jun Nakajima, Takashi Nishida, Ryutei Inui, Katsuhisa Eguchi, Masaya Nakatani, Jun Kaneto, and Shin Oikawa*

Factors affecting utilization of host species in the rock bitterling *Acheilognathus tabira tabira* of Kushida river system in Mie. *Hajime Maeda, Jyun-ichi Kitamura, and Yoshikazu Nagata*

Hypoxia tolerance of 6 bitterling species inhabited in Lake Kasumigaura, Japan. *Takahiro Morosawa*

Spawning grounds and nests of *Gymnogobius macrognathos* found in the Tatara River flowing Fukuoka City in Fukuoka Prefecture. *Katsuhisa Eguchi, Ryutei Inui, Takashi Nishida, Jun Nakajima, and Norio Onikura*

Male-male competition and reproductive territory of the bagrid catfish *Pseudobagrus nudiceps*. *Chiharu Torii, Manabu Kume, Seiichi Mori, and Yasushi Harada*

Demonstration of ecological speciation by transplant examinations. *Tetsumi Takahashi*

The behavioral range and the spawning bed of *Pseudoblennius percoides* in the Koinoura seashore. *Takashi Nishida, Ryutei Inui, Norio Onikura, and Shin Oikawa*

Genetic variation in environmental stress tolerance among two lineages and their hybrid swarms of ice goby *Leucopsarion petersii*. *Sayaka Takahashi and Tomoyuki Kokita*

Does the foraging efficiency of predatory fish always decrease with an increasing structural complexity of seagrass habitats? *Masahiro Horinouchi*

Size-related overwinter mortality of medaka fish (*Oryzias latipes*). *Shinobu Itoh, Masashi Ohta, and Nobuyuki Azuma*

Trophic level changes of Miyabe Charr for the last 70 years. *Haruki Kobayashi, Noboru Okuda, and Koji Maekawa*

Medium term chage of fish assemblage in floodplain. *Tomoaki Kuwahara*

Accumulation of chemical pollutants in the Japanese eel *Anguilla japonica* during the life history. *Yoko Ikeda, Mayuko Oka, and Takaomi Arai*

Feeding cycle of the Mekong giant catfish, *Pangasianodon gigas*, in the Aquarium. *Koki Ikeya, Jun Hatano, Shunsuke Tanimura, and Yukiko Hori*

Present state of inhabitation and protection in *Aphyocyparis chinensis*. *Kosuke Takaku, Midori Kobayakawa, Norio Onikura, Kenichi Ohara, and Kazumi Hosoya*

Simulation of weighted usable spawning area of shishamo smelt *Spirinchus lanceolatus* with changing in channel bed morphology. *Tetsuhiko Yagami, Takashi Araki, Kazuma Shigemura, Hisaya Nii, and Takao Yoneda*

Distribution of the endangered species, *Aphyocypris chinensis* in canals and relationships between its life history and agricultural affairs. *Midori Kobayakawa, Tetsuo Hashimoto, Kosuke Takaku, and Kazumi Hosoya*

Daily and tidal rhythms of threespot wrasse. *Yoriko Shibata, Miyuki Uchimura, Rena Ooya, Hiromi Nakajima, Shigeo Nakamura, and Akihiro Takemura*

Masu salmon (*Oncorhynchus masou*) parr cannibalizes eggs regardless of their fertilization success. *Masahiro Watanabe, Shozo Takamura, and Koji Maekawa*

Interspecific relations of the shrimp goby *Cryptocentrus caeruleomaculatus* and alpheid shrimps. *Miyuki Tsuboi, Yoichi Sakai, and Hiroaki Hashimoto*

Male-removal experiments in the polygynous hawkfish, *Paracirrhites forsteri* (Cirrhitidae). *Tatsuru Kadota, Tomoko Mitsui, Yoichi Sakai, and Hiroaki Hashimoto*

Genetic structures of sparid populations isolated by Kuroshio Current between Japanese and Ryukyu Islands. *Satoru Chiba and Naoto Hanzawa*

Genetic differentiation in the genus *Uroconger* (Congridae) in the Indo-Pacific. *Tao Ma, Jun Aoyama, Michael J. Miller, Yuki Minegishi, Jun G. Inoue, and Katsumi Tsukamoto*

Origin of non-indigenous populations of 3 *Tridentiger* species in U.S.A. *Kana Sekiyama and Takahiko Mukai*

Complete mtDNA sequence of Japanese smallmouth bass: comparison with the partial nucleotide sequences in the database. *Chika Sato and Takahiko Mukai*

Speciation mechanism of endemic species in Lake Biwa—a case of *Sarcocheilichthys* fishes (Cyprinidae). *Takefumi Komiya and Katsutoshi Watanabe*

Invasion of non-native gene into Okinawa Island population of *Oryzias latipes* based on allozyme analysis of aspartate aminotransferase. *Hideyuki Imai, Toshihiko Yonezawa, and Katsunori Tachihara*

Genetic population structure of *Pseudogobius masago* in the Japan-Ryukyu Archipelago. *Takahiko Mukai and Akari Hayakawa*

Genetic population structure of the Japanese torrent catfish *Liobagrus reini*, inferred from mitochondrial DNA sequences. *Hikaru Nakagawa, Katsutoshi Watanabe, Takanori Ishikawa, and Shingo Seki*

Morphological variation and genetic population structure of *Squalidus chankaensis* and *S. japonicus* in Japan. *Ryo Kakioka, Katsutoshi Watanabe, and Seiichi Mori*

- Interrelationships of deep-sea macrourids (Gadiformes) inferred from whole mitochondrial genome sequences. *Takashi Satoh, Masaki Miya, Hiromitsu Endo, and Mutsumi Nishida*
- MHC variation in the endangered Japanese bitterling *Tanakia tanago*. *Hitoshi Kubota, Katsutoshi Watanabe, and Seiichi Watanabe*
- Disturbance of indigenous gene pool by intraspecific introgression of *Lethenteron* sp.S. *Ayumi Yamano, Ryota Yokoyama, Hirohiko Takeshima, Mutsumi Nishida, and Yuji Yamazaki*
- Genetic variation in local populations of *Acheilognathus longipinnis* deduced from microsatellite DNA analysis. *Yuji Yamazaki, Masaki Nishio, and Kazuhiko Uehara*
- Genetic diversity of natural and aquarium bloodstocks of Japanese three-spine stickleback *Gasterosteus microcephalus* estimated from Inter-simple Sequence Repeats (ISSR) Analysis. *Toru Kobayashi, Hiroshi Abe, Naoki Yagishita, and Masanari Matsuda*
- Use of microsatellite locus flanking regions for identifying Japanese wild strain of common carp. *Kohji Mabuchi, Hiroshi Senou, and Mutsumi Nishida*
- Interpopulation variation in egg size of fluvial white-spotted charr *Salvelinus luecomaeensis*. *Takeshi Kikko, Yasushi Harada, Daisuke Takeuchi, and Yoshiaki Kai*
- Morphology of gobioid larvae collected from sea coasts and estuaries on Okinawa Island. *Ken Maeda, Nozomi Yamasaki, and Katsunori Tachihara*
- Larval and juvenile fishes collected in the epibenthic layer of the upper continental slope of Suruga Bay. *Munehiro Takami and Atsushi Fukui*
- Growth and survival of juveniles from wild or cultured broodstocks in four spine sculpin *Cottus kazika*. *Daisuke Tahara, Yuri Tanikawa, and Hiroshi Hashimoto*
- Classification and distribution of anguilliform leptocephali collected from the northern East China Sea to the southern Sea of Japan during autumn. *Masanori Takahashi, Noritaka Mochioka, Sekio Shinagawa, and Tsuneo Goto*
- Larval developments of *Eumicrotremus taranetzi*, in the family Cyclopteridae, from Sea of Okhotsk,Hokkaido,Japan. *Shinpei Higano, Atsushi Susuki, and Noboru Watanabe*
- Comparison of external morphology in early developmental stages among sympatric threespine sticklebacks and their hybrids. *Manabu Kume, Seiichi Mori, Chiharu Torii, and Masayuki Kato*
- Population dynamics of the larvae and juveniles of Labridae, Scaridae, Tripterygiidae and Apogonidae in Okinawa Island. *Taiki Ishihara and Katsunori Tachihara*
- Impressions concerning visual sense in salmon. *Eiichi Hasegawa and Toshiya Suzuki*
- Gonads of maturing broadband thornyhead. *Hajime Matsubara, Kohei Satoh, Atsushi Suzuki, and*

*Masao Itoh*

Gonad morphology and estimation at breeding period of Japanese seahorse, *Hippocampus mohnikei*, from Matsushima bay. *Yuu Otsuka, Hiroyasu Suzuki, Takashi Kawamura, Kiyoto Sawaki, Akinori Otani, and Izumi Akagawa*

Elemental composition of otoconia from 5 elasmobranch species. *Yosuke Amano, Tomomi Nakamura, Yoshio Sato, and Sho Tanaka*

Head color change of Mekong giant catfish, *Pangasianodon gigas*, in the aquarium. *Jun Hatano, Koki Ikeya, Syunsuke Tanimura, and Yukiko Hori*

Habitat recovery of *Tanakia tanago* in the pond of Yokohama City. *Naoyuki Suguro*

Hane-ami-ryo, a traditional fisheries for ayu in Omono River, Akita Prefecture. *Tosimi Kusanagi and Hideki Sugiyama*

*Gobiopsis* is not monophyletic: evidence from osteology. *Naomi Delventhal and Randall Mooi*