ASFA-1, Biological Sciences and Living Resources (Q1)

General Aspects

08101 General Works
08102 Institutes and Organizations
08103 Information Services
08104 Personal
08105 Research Programmes, Expeditions and Vessels
08106 Conferences and Other Meetings
08107 History and Development
08108 Education
08109 Books, Atlases and Charts
08110 Translations
08121 Law, Policy, Economics and Social Sciences

Biology: General

08181 General
08182 Methods and Instruments
08183 Taxonomy and Morphology
08184 Reproduction and Development
08185 Genetics and Evolution
08186 Physiology, Biochemistry, Biophysics
08187 Paleontology

Microbiology

08201 General
08202 Methods and Instruments
08203 Taxonomy and Morphology
08204 Reproduction and Development
08205 Genetics and Evolution
08206 Physiology, Biochemistry, Biophysics

Botany

08221 General
08222 Methods and Instruments
08223 Taxonomy and Morphology
08224 Reproduction and Development
08225 Genetics and Evolution
08226 Physiology, Biochemistry, Biophysics

**Invertebrate Biology: General**

08241 General
08242 Methods and Instruments
08243 Taxonomy and Morphology
08244 Reproduction and Development
08245 Genetics and Evolution
08246 Physiology, Biochemistry, Biophysics

**Malacology**

08261 General
08262 Methods and Instruments
08263 Taxonomy and Morphology
08264 Reproduction and Development
08265 Genetics and Evolution
08266 Physiology, Biochemistry, Biophysics

**Carcinology**

08281 General
08282 Methods and Instruments
08283 Taxonomy and Morphology
08284 Reproduction and Development
08285 Genetics and Evolution
08286 Physiology, Biochemistry, Biophysics

**Entomology**

08301 General
08302 Methods and Instruments
08303 Taxonomy and Morphology
08304 Reproduction and Development
08305 Genetics and Evolution
08306 Physiology, Biochemistry, Biophysics
Chordate Biology: General

08321 General
08322 Methods and Instruments
08323 Taxonomy and Morphology
08324 Reproduction and Development
08325 Genetics and Evolution
08326 Physiology, Biochemistry, Biophysics

Ichthyology

08341 General
08342 Methods and Instruments
08343 Taxonomy and Morphology
08344 Reproduction and Development
08345 Genetics and Evolution
08346 Physiology, Biochemistry, Biophysics

Ornithology

08361 General
08362 Methods and Instruments
08363 Taxonomy and Morphology
08364 Reproduction and Development
08365 Genetics and Evolution
08366 Physiology, Biochemistry, Biophysics

Mammalogy

08371 General
08372 Methods and Instruments
08373 Taxonomy and Morphology
08374 Reproduction and Development
08375 Genetics and Evolution
08376 Physiology, Biochemistry, Biophysics

Aquatic Ecology

08381 General
08382 Ecological Techniques and Apparatus
08383 Biogeography and Biogeographic Regions
SUBJECT CLASSIFICATIONS FOR ASFA 1, ASFA 2, ASFA 3, ASFA AQUACULTURE, and ASFA MARINE BIOTECHNOLOGY

Autecology

08421 Migrations and Rhythms
08422 Environmental Effects
08423 Behaviour
08424 Age and Growth
08425 Nutrition and Feeding Habits

Population Studies

08441 Population Structure
08442 Population Dynamics
08443 Population Genetics

Aquatic Communities

08461 Plankton
08462 Benthos
08463 Habitat Community Studies
08464 Other Aquatic Communities

Productivity, Ecosystems, Species Interactions

08481 Productivity
08482 Ecosystems and Energetics
08483 Species Interactions: General
08484 Species Interactions: Parasites and Diseases
08485 Species Interactions: Pests and Control

Fouling and Boring

08541 Biology of Fouling and Boring Organisms
08542 Prevention and Control

Practical Aspects of Fisheries

08561 General
08562 Fishing Vessels and Harbours
08563 Fishing Gear and Methods
08564 Instruments, tools, Equipment
08565 Policy, Legislation, and Sociology
08566 Fishery Charts, Grounds and Water Areas
08567 Fishery Oceanography and Limnology
SUBJECT CLASSIFICATIONS FOR ASFA 1, ASFA 2, ASFA 3, ASFA AQUACULTURE, and ASFA MARINE BIOTECHNOLOGY

Aquaculture

08581 General
08582 Fish Culture
08583 Shellfish Culture
08584 Culture of other Aquatic Animals
08585 Plant Culture
08586 Aquaria
08587 Diseases of Cultured Organisms
08588 Effects of Aquaculture on the Environment

Fishable Stocks

08601 General
08602 Surveying and Prospecting
08603 Fishery Statistics and Sampling
08604 Stock Assessment and management
08605 Sport Fishing

Aquatic Products and their Utilization

08621 General
08622 Primary Products
08623 Processing Methods, Instruments and Factories
08624 Secondary Products
08625 Non-Edible Products
08626 Food Technology
08627 Food Quality and Standards

Marketing and Economics of Aquatic Products

08641 General
08642 Storage, Transport and Packing
08643 Marketing
08644 Economics
08645 Commodity and trade Statistics
ASFA-2, Ocean Technology, Policy and Non-Living Resources (Q2)

General Aspects

09101 General Works
09102 Institutes and Organizations
09103 Information Services
09104 Personal
09105 Research Programmes, Expeditions and Vessels
09106 Conferences and Other Meetings
09107 History and Development
09108 Education
09109 Books, Atlases and Charts
09110 Translations

Law, Policy, Economics and Social Sciences

09121 General
09122 Legislation
09123 Conservation
09124 Coastal Zone Management
09125 Recreation
09126 Sociology
09127 General Papers on Resources

Descriptive Oceanography and Limnology

09141 General
09142 Methods and Instruments
09144 Regional Studies, Expeditions and Data Reports
09146 TSD Distribution, Water Masses and Circulation
09148 Palaeo-Studies
09150 Ice

Dynamical Oceanography and Limnology

09161 General
09162 Methods and Instruments
09163 Air-Water Boundary Layer
09164 Ocean Circulation and Currents
09165 Benthic Boundary Layer
09166 Internal Waves and Microstructure
09167 Tides, Surges, and Sea Level
09168 Wind Waves
09169 Fluid Mechanics
09170 Nearshore Dynamics
09171 Dynamics of lakes and Rivers

Chemistry and Geochemistry

09181 General
09182 Methods and Instruments
09183 Physics and Chemistry
09184 Composition of Water
09185 Organic Compounds
09186 Chemistry of Suspended Matter
09187 Geochemistry of Sediments
09188 Atmospheric Chemistry

Underwater Acoustics

09201 General
09202 Methods and Instruments
09203 Propagation of Sound
09204 Reverberation
09205 Noise and Bioacoustics

Underwater Optics

09221 General
09222 Methods and Instruments
09223 Optical Properties
09225 Underwater Viewing

Marine Meteorology and Climatology

09241 General
09242 Observations and Measurements at Sea
09243 Structure, Mechanics and Thermodynamics
09244 Ship routing and Icing
Geology and Geophysics

09261 General
09262 Methods and Instruments
09263 Topography and Morphology
09264 Sediments and Sedimentation
09265 Sedimentary Structures and Stratigraphy
09266 Tectonics and Crustal Structure
09267 Gravity and Geodesy
09268 Heat Flow
09269 Geomagnetism
09270 Seismology
09271 Coastal Morphology
09272 Petrology and Chemistry of Rocks
09273 Paleontology
09274 Coral Reefs

Marine Technology

09281 General
09282 Materials Technology, Corrosion, Fouling and Boring
09283 Soil Mechanics
09284 Hydrodynamics

Vessels, Underwater Vehicles and Buoys

09301 Surface vehicles
09302 Underwater Vehicles
09303 Buoys and Buoy Systems

Offshore and Coastal Structures

09321 General
09322 Drilling and Production Rigs
09323 Storage Systems and Tanker Terminals
09324 Artificial Islands
09325 Pipelines
09326 Sea Floor Installations
09327 Coast Defences and Harbour Works
Man-In-The-Sea and Diving

09341 General
09342 Physiology and Medicine
09343 Diving Systems
09344 Life Support
09345 Pressure Chambers
09346 Dangerous Organisms

Support Services, Techniques and Equipment

09381 Cables
09382 Communication Telemetry
09383 Data Acquisition and Processing
09384 Dredging
09385 Hydrographic Survey and Cartography
09386 Mooring and Dynamic Positioning
09387 Navigation
09388 Ocean Operations and Safety
09389 Power Systems
09390 Search and Salvage
09391 Tools, Rigging and Deck Machinery
09392 Warning Services against Catastrophes
09393 Remote Sensing

Resources

09401 General
09402 Freshwater from the Sea
09403 Chemicals from the Sea Water
09404 Minerals
09405 Oil and Gas
09406 Energy from the Sea

Commerce, Trade and Economics

09421 Marketing and Economics: general
09422 Storage and Transport
09423 Marketing
09424 Applied Economics
09425 Commodity and Trade Statistics
# ASFA-3, Aquatic Pollution and Environmental Quality (Q5)

### Aquatic Pollution

- 08501 General
- 08502 Methods and Instruments
- 08503 Characteristics, Behaviour and Fate
- 08504 Effects on Organisms
- 08505 Prevention and Control

### Environmental Quality

- 08521 Mechanical and Natural Changes
- 08522 Protective Measures and Control
- 08523 Conservation, Wildlife Management, and Recreation
- 08524 Public Health, Medicine, Dangerous Organisms

# ASFA, Aquaculture Abstracts (Q3)

- 08581 General
- 08582 Fish Culture
- 08583 Shellfish Culture
- 08584 Culture of Other Aquatic Animals
- 08585 Plant Culture
- 08586 Aquaria
- 08587 Diseases of Cultured Organisms
- 08588 Effects of Aquaculture on the Environment

# ASFA Marine Biotechnology Abstracts (Q4)

### General Aspects

- 27100 General Works
- 27110 Institutes and Organizations
- 27120 Conferences, Meetings, Etc.
- 27130 New Books
- 27140 Patents
Molecular Biotechnology

27150 General
27160 Methods and Instruments
27170 Microorganisms (viruses, bacteria, fungi, yeasts)
27180 Microalgae
27190 Macroalgae and Higher Plants
27200 Shellfish and Other Aquatic Animals (excluding fish)
27210 Fish

Supporting Technology

27220 General
27230 Sensors and Communications
27240 Instrumentation and Process Engineering
27250 Deep-Sea Technology
27260 Immobilization
27270 Cell/Tissue Culture (included Hybridoma)

Aquaculture/Fisheries

27290 General
27300 Microorganisms
27310 Plant Culture
27320 Shellfish Culture (mollusks, crustacea)
27330 Fish Culture
27340 Other Animals
27350 Aquariology

Medical/Veterinary

27360 Vaccines
27370 Antibiotics
27380 Pharmaceuticals
27390 Toxins
27400 Hormones
27410 Enzymes
27420 Other
SUBJECT CLASSIFICATIONS FOR ASFA 1, ASFA 2, ASFA 3, ASFA AQUACULTURE, and ASFA MARINE BIOTECHNOLOGY

Aquatic Product Applications

27430 Fermentation
27440 Biofouling/Corrosion/Adhesives
27450 Chemical/Mineral Products
27460 Energy Applications
27470 Food Products
27480 Environmental applications

Molecular Applications

27700 Molecular Techniques
27710 Cell Culture and Fermentation
27720 Technology
27730 Aquaculture
27740 Products
27750 Environmental
27760 Microorganisms
27770 Algae
27780 Shellfish and Invertebrates
27790 Fish
27800 Miscellaneous