

## Index to Volume XXIII

### Author Index

- ABBOTT, AGATIN T., and STEVEN W. POTTRATZ:  
Marine pothole erosion, Oahu, Hawaii, 276-290
- BIGELOW, GORDON E.:  
Distribution and characteristics of dikes in the southeast part of the Koolau Range, Oahu, 496-506
- CHEN, LO-CHAI:  
*see* Taylor and Chen
- COHEN, DANIEL M., and WILLIAM P. DAVIS:  
Vertical orientation in a new gobioid fish from New Britain, 317-324
- DAVIS, WILLIAM P.:  
*see* Cohen and Davis
- DAWSON, J. W., and B. V. SNEDDON:  
The New Zealand rain forest: a comparison with tropical rain forest, 131-147
- DEAN, J.:  
*see* Lewis, Dean, and Gilfillan
- DI SALVO, LOUIS H.:  
On the existence of a coral reef regenerative sediment, 129
- DIX, TREVOR G.:  
Aggregating in the echinoid *Evechinus chloroticus*, 123-124  
Association between the echinoid *Evechinus chloroticus* (Val.) and the clingfish *Dellichthys morelandi* Briggs, 332-336
- DUCE, ROBERT A., YUK-BON SETO, and JARVIS L. MOYERS:  
Variation of sodium and chloride concentrations with rainfall intensity in Hawaiian trade wind showers, 483-495
- GILFILLAN, E.:  
*see* Lewis, Dean, and Gilfillan
- GILLET, GEORGE W.:  
The nomenclatural and taxonomic status of the Hawaiian shrub *Scaevola gaudichaudii* H. & A., 125-128  
*see also* Gupta and Gillett
- GRAY, JOHN S.:  
A new species of *Saccocirrus* (Archiannelida) from the west coast of North America, 238-251
- GROSS, M. GRANT, JOHN D. MILLIMAN, JOSHUA I. TRACEY, JR., and HARRY S. LADD:  
Marine geology of Kure and Midway atolls, Hawaii: a preliminary report, 17-25
- GUPTA, SAMTA, and G. W. GILLET:  
Observations on Hawaiian species of *Wikstroemia* (Angiospermae: Thymelaeaceae), 83-88
- HAAS, GLENN E.:  
Quantitative relationships between fleas and rodents in a Hawaiian cane field, 70-82
- HADERLIE, EUGENE C.:  
*see* Smith and Haderlie
- HARDY, JOHN T., and SHEILA A. HARDY:  
Ecology of *Tridacna* in Palau, 467-472
- HARDY, SHEILA A.:  
*see* Hardy and Hardy
- HOBSON, EDMUND S.:  
Comments on certain recent generalizations regarding cleaning symbiosis in fishes, 35-39
- HOLTON, ARTHUR ALLEN:  
Feeding behavior of a vertically migrating lantern-fish, 325-331
- HOPKINS, THOMAS S.:  
*see* Scanland and Hopkins
- HUNTER, CHARLES J.:  
Confirmation of symbiotic relationship between liparid fishes (*Careproctus* spp.) and male king crab (*Paralithodes camtschatica*), 546-547
- IKAWA, HARUYOSHI:  
*see* Sherman, Ikawa, and Matsusaka
- JACKSON, WILLIAM B.:  
Survival of rats at Eniwetok Atoll, 265-275
- JOHNSON, VICTOR R., JR.:  
Behavior associated with pair formation in the banded shrimp *Stenopus hispidus* (Olivier), 40-50
- KAMEMOTO, FRED I.:  
*see* Kamemoto and Kato  
*see also* Ono and Kamemoto
- KAMEMOTO, FRED I., and KENNETH N. KATO:  
The osmotic and chloride regulative capacities of five Hawaiian decapod crustaceans, 232-237
- KATO, KENNETH N.:  
*see* Kamemoto and Kato
- KATSURA, TAKASHI:  
*see* Walker, Sherman, and Katsura
- KAY, E. ALISON, and DAVID K. YOUNG:  
The Doridacea (Opisthobranchia; Mollusca) of the Hawaiian Islands, 172-231

- KENDALL, JAMES I.:  
see Tester and Kendall
- KENNY, RON:  
Growth and asexual reproduction of the starfish  
*Nepenthia belcheri* (Perrier), 51-55
- LADD, HARRY S.:  
see Gross et al.
- LEWIS, A. G., J. DEAN, and E. GILFILLAN III:  
Taxonomy and host associations of some parasitic  
copepods (Crustacea) from pelagic teleost fishes,  
414-437
- LING, JOHN K.:  
A review of ecological factors affecting the annual  
cycle in island populations of seals, 399-413
- LOGANATHAN, P., and L. D. SWINDALE:  
The properties and genesis of four middle altitude  
Dystrandep volcanic ash soils from Mauna Kea,  
Hawaii, 161-171
- LONG, EDWARD R., and JAMES B. RUCKER:  
A comparative study of cheilostome Bryozoa at  
Yokosuka, Maizuru, and Sasebo, Japan, 56-69
- MCGINTY, MAXINE:  
*Batillipes gilmarini*, a new marine tardigrade from  
a California beach, 394-396
- MÄKINEN, YRJÖ:  
Ustilaginales of Hawaii, 344-349
- MALONE, THOMAS C.:  
Primary productivity in a Hawaiian fishpond and  
its relationship to selected environmental factors,  
26-34
- MATSUSAKA, YOSHITO:  
see Sherman, Ikawa, and Matsusaka
- MILLIMAN, JOHN D.:  
see Gross et al.
- MOYERS, JARVIS L.:  
see Duce, Seto, and Moyers
- MULLIN, MICHAEL M.:  
Distribution, morphometry, and seasonal biology  
of the planktonic copepods, *Calanus tenuicornis*  
and *C. lighii*, in the Pacific Ocean, 438-446
- NEWMAN, WILLIAM A.:  
see Ross and Newman
- NISHIMOTO, JIRO:  
Two sea urchins found inside the air bladder of  
the bull kelp (*Nereocystis luetkeana*), 397-398
- ONO, JOYCE K., and FRED I. KAMEMOTO:  
Annual and proedysial variations in urine produc-  
tion in crayfish, 305-310
- PAINE, ROBERT T.:  
Growth and size distribution of the brachiopod  
*Terebratalia transversa* Sowerby, 337-343
- POTTRATZ, STEVEN W.:  
see Abbott and Pottratz
- ROSS, ARNOLD, and WILLIAM A. NEWMAN:  
A coral-eating barnacle, 252-256
- RUCKER, JAMES B.:  
see Long and Rucker
- ST. JOHN, HAROLD:  
Hawaiian plant studies  
30. Hawaiian novelties in the genus *Solanum*  
(Solanaceae), 350-354  
34. Monograph of the Hawaiian species of  
*Gouania* (Rhamnaceae), 507-543  
Revision of the genus *Pandanus* Stickman  
Part 33. Further accounts of Australian species,  
and a key to the section *Microstigma*, 89-114  
Part 34. Four species from the Philippines, 355-  
366
- SAITO, YUZURU:  
The algal genus *Laurencia* from the Hawaiian  
Islands, the Philippine Islands and adjacent  
areas, 148-160
- SCANLAND, THOMAS B., and THOMAS S. HOPKINS:  
A new species of hermit crab, *Pylopagurus diegen-  
sis* (Decapoda: Anomura), with a key for the  
genus in the eastern Pacific, 257-260
- SETO, YUK-BON:  
see Duce, Seto, and Moyers
- SHAPEERO, WILLIAM:  
A positive chitosan test for spicules in the an-  
thozoan order, Pennatulacea, 261-263
- SHERMAN, G. DONALD:  
see Sherman, Ikawa, and Matsusaka  
see also Walker, Sherman, and Katsura
- SHERMAN, G. DONALD, HARUYOSHI IKAWA, and  
YOSHITO MATSUSAKA:  
Aluminous-ferruginous oxide mineral nodules in  
tropical soils, 115-122
- SMITH, ALBERT C.:  
Studies of Pacific island plants  
XX. Notes on some Fijian species of *Readea*  
and *Psychotria* (Rubiaceae), 367-382  
XXI. New and noteworthy flowering plants  
from Fiji, 383-393
- SMITH, STEPHEN V., and EUGENE C. HADERLIE:  
Growth and longevity of some calcareous fouling  
organisms, Monterey Bay, California, 447-451
- SNEDDON, B. V.:  
see Dawson and Sneddon
- SWINDALE, L. D.:  
see Loganathan and Swindale
- TAYLOR, PETER B., and LO-CHAI CHEN:  
The predator-prey relationship between the oc-  
topus (*Octopus bimaculatus*) and the Cali-  
fornia scorpionfish (*Scorpaena guttata*), 311-316

- TESTER, ALBERT L., and JAMES I. KENDALL:  
Morphology of the lateralis canal system in the shark genus *Carcharbinus*, 1-16
- THOMAS, CHARLES W.:  
Paleontological analyses of North Pacific ocean-bottom cores, 473-482
- TRACEY, JOSHUA I., JR.:  
*see* Gross et al.
- WALKER, JAMES L., G. DONALD SHERMAN, and TAKASHI KATSURA:  
The iron and titanium minerals in the titaniferous ferruginous latosols of Hawaii, 291-304
- WEBER, JON N.:  
Origin of concentric banding in the spines of the tropical echinoid *Heterocentrotus*, 452-466
- WHEELER, MARSHALL R.:  
A note on the genus *Drosophilella* Duda (Diptera; Drosophilidae), 544-545
- YOUNG, DAVID K.:  
*see* Kay and Young

## Subject Index

- aggregating in an echinoid, 123-124  
annual cycle of seals, 399-413  
Anthozoa, chitin in, 261-263
- banding in spines of *Heterocentrotus*, 452-466  
barnacle, coral-eating, 252-256  
*Batillipes gilmartini*, a new tardigrade, 394-396  
behavior associated with pair formation in banded shrimp, 40-50  
Bryozoa, cheilostome, in Japan, 56-69
- Calanus ligbtii*, distribution, morphometry, and biology of, 438-446  
*Calanus tenuicornis*, distribution, morphometry, and biology of, 438-446  
calcareous fouling organisms, growth and longevity of, 447-451  
*Carcharbinus*, morphology of lateralis canal system in, 1-16  
chitin in an anthozoan order, 261-263  
chitosan test, 261-263  
chloride regulative capacities of decapod crustaceans, 232-237  
cleaning symbiosis in fishes, 35-39  
clingfish, association with an echinoid, 332-336  
copepods, parasitic, from teleost fishes, 414-437  
  planktonic, study of two species of, 438-446  
coral-eating barnacle, 252-256  
coral reef, regenerative sediment in, 129  
crayfish, variations in urine production in, 305-310  
crustaceans, decapod, osmotic and chloride regulative capacities of, 232-237
- Dellichthys morelandi*, association with *Evechinus chloroticus*, 332-336  
dikes in the Koolau Range, 496-506  
Doridacea (Opisthobranchia) of Hawaii, 172-231  
*Drosophilella*, 544-545  
Dystrandeps from Hawaii, 161-171
- ecological factors affecting annual cycle of seals, 399-413  
ecology of *Tridacna*, 467-472  
Eniwetok Atoll, survival of rats at, 265-275
- environmental factors affecting productivity in a fishpond, 26-34  
erosion of marine potholes, 276-290  
*Evechinus chloroticus*, aggregating in, 123-124  
  association with clingfish, 332-336
- feeding behavior of a vertically migrating lanternfish, 325-331  
Fiji, new flowering plants from, 383-393  
  some species of *Readea* and *Psychotria* (Rubiaceae) from, 367-382  
fishpond, Hawaiian, productivity in, 26-34  
fleas and rodents, quantitative relationships between, 70-82  
flowering plants from Fiji, 383-393  
fouling organisms, calcareous, growth and longevity of, 447-451  
geology, marine, of Kure and Midway atolls, 17-25  
*Gouania* (Rhamnaceae), Hawaiian species of, 507-543  
  growth of *Terebratalia transversa*, 337-343
- Hawaiian Islands, algal genus *Laurencia* from, 148-160  
Hawaiian Islands, Doridacea of, 172-231  
Hawaiian species of *Gouania*, 507-543  
  of *Wikstroemia*, 83-88  
Hawaiian trade wind showers, sodium and chloride concentrations in, 483-495  
Hawaii, new species of *Solanum* in, 350-354  
  smut flora of, 344-349  
hermit crab, new species of, 257-260  
*Heterocentrotus*, origin of concentric banding in spines of, 452-466
- Japan, cheilostome Bryozoa of, 56-69
- kelp, sea urchins in air bladder of, 397-398  
king crab, symbiotic with liparid fishes, 546-547  
Koolau Range, Oahu, dikes in, 496-506  
Kure, marine geology of, 17-25
- lanternfish, feeding behavior of, 325-331  
lateralis canal system, morphology of in *Carcharbinus*, 1-16

- latosols of Hawaii, iron and titanium minerals in, 291-304
- Laurencia* from Hawaii and Philippines, 148-160
- liparid fishes (*Careproctus* spp.), symbiotic with king crab, 546-547
- marine geology of Kure and Midway atolls, 17-25
- marine pothole erosion, 276-290
- Mauna Kea, Dystrandep volcanic ash soils from, 161-171
- Midway, marine geology of, 17-25
- mineral nodules in tropical soils, 115-122
- minerals, iron and titanium, in Hawaiian latosols, 291-304
- Nepanthia belcheri*, growth and asexual reproduction of, 51-55
- New Britain, new gobioid fish from, 317-324
- new species of
- Doridacea, 172-231
  - flowering plants from Fiji, 383-393
  - gobioid fish, 317-324
  - Gouania*, 507-543
  - hermit crab, 257-260
  - Laurencia*, 148-160
  - Pandanus*, 350-354, 355-366
  - Psychotria*, 367-382
  - Saccocirrus*, 238-251
  - Solanum*, 350-354
  - tardigrade, marine, 394-396
- New Zealand rain forest compared with tropical rain forest, 131-147
- nodules, oxide mineral, in tropical soils, 115-122
- ocean-bottom cores, paleontological analyses of, 473-482
- octopus, predator-prey relationship with scorpionfish, 311-316
- osmotic regulative capacities of decapod crustaceans, 232-237
- pair formation in banded shrimp, behavior associated with, 40-50
- Palau, ecology of *Tridacna* in, 467-472
- paleontological analyses of ocean-bottom cores, 473-482
- Pandanus*, Australian species of, 89-114
- four species from the Philippines, 355-366
- Pandanus*, revision of genus, Part 33, 89-114
- Part 34, 355-366
- parasitic copepods from teleost fishes, 414-437
- Pennatulacea, chitin in, 261-263
- Philippine Islands, algal genus *Laurencia* from, 148-160
- Philippines, four species of *Pandanus* from, 355-366
- potholes, marine, 276-290
- predator-prey relationship of octopus and California scorpionfish, 311-316
- primary productivity in a Hawaiian fishpond, 26-34
- Psychotria*, some Fijian species of, 367-382
- Pylopagurus diegensis*, new species of hermit crab, 257-260
- Pylopagurus*, key for genus in eastern Pacific, 259-260
- rain forest, New Zealand and tropical, 131-147
- rainfall intensity, related to sodium and chloride concentrations in trade wind showers, 483-495
- rats, survival of at Eniwetok, 265-275
- Readea*, some Fijian species of, 367-382
- reproduction, asexual, of a starfish, 51-55
- rodents and fleas, quantitative relationships between, 70-82
- Saccocirrus* (Archannelida), new species of, 238-251
- Scaevola gaudichaudii*, nomenclatural and taxonomic status of, 125-128
- scorpionfish, predator-prey relationship with octopus, 311-316
- seals, factors affecting annual cycle of, 399-413
- sea urchins in air bladder of bull kelp, 397-398
- sediment, regenerative, in a coral reef, 129
- shark, morphology of lateralis canal system in, 1-16
- shrimp, banded, pair formation in, 40-50
- smut flora of Hawaii, 344-349
- sodium and chloride concentrations in Hawaiian showers, 483-495
- soils, tropical, oxide mineral nodules in, 115-122
- volcanic ash, from Mauna Kea, Hawaii, 161-171
- Solanum*, two new species in Hawaii, 350-354
- starfish, growth and reproduction of, 51-55
- Stenopus hispidus*, pair formation in, 40-50
- symbiosis between liparid fishes and king crab, 546-547
- symbiosis, cleaning, in fishes, 35-39
- tardigrade, new species from California, 394-396
- teleost fishes, parasitic copepods from, 414-437
- Terebratalia transversa*, growth and size distribution of, 337-343
- Tridacna*, ecology of, 467-472
- urine production in crayfish, 305-310
- Ustilaginales of Hawaii, 344-349
- vertically migrating lanternfish, 325-331
- vertical orientation in a new gobioid fish, 317-324
- volcanic ash soils, 161-171
- Wikstroemia*, Hawaiian species of, 83-88