

SUBJECT AND AUTHOR INDEX

	Page		Page
ABO (accessory boring organ).....	430	Allen, W. R., labial palps in <i>Anodonta</i>	114
absorption through the gills and mantle.....	231	rotation of crystalline style.....	225
accessory heart.....	76, 258, 259	Allison, J. B., diantlin in sperm.....	312
connections with pallial artery.....	259	Altamaha Sound, Ga., oyster reef.....	403
function of.....	259	Alvsaker, E., chemical composition.....	383
injection of.....	259	glycogen.....	387
pulsation.....	259	fat content in <i>O. edulis</i>	387
acetylcholine, content in heart.....	252	proteins.....	391
effect on ciliary motion.....	141	Amberson, W. R., respiratory quotient.....	212
effect on heart.....	252	ambisexual oysters.....	324
sensitivity of bivalve heart.....	252	ambisexual primary gonad.....	314
actin, in adductor muscle.....	164	Amemiya, I., hermaphroditism in <i>C. gigas</i>	316
action currents in heart.....	244	sex change.....	316
action potentials in heart.....	250	amino acids, in conchiolin.....	41
<i>Acrolopus lacustris</i> , adhesive epithelium.....	160	in excreta.....	277
acrosomal reaction.....	341	in marine and freshwater species.....	391
actomyosin, in adductor muscle.....	157	in <i>Pinctada</i> shell.....	41
adductor muscle.....	70, 152	in <i>Pinna</i> shell.....	41
anatomy.....	152	Amirthalingham, C.....	32
attachment of.....	160	ammonia, in kidney excreta.....	276
bundles parallel to valve surface.....	159, 160	ammonia carmine, concentrated in pericardial glands.....	274
chemical composition.....	161	Amoebocytes.....	262
duration of contraction.....	165	<i>Amphitrite ornata</i>	427
electrical activity.....	166	amylase.....	229
gross analysis.....	162	pH optimum.....	230
innervation in <i>Crassostrea</i> and <i>Mytilus</i>	166	<i>Anadara (Arca)</i> , antisera.....	266
inorganic salts.....	162	antigens.....	142
in larva.....	359, 368	anal sphincter.....	226
microscopic structure.....	153	analyses, for heavy metal.....	385
power of.....	175, 180	anatomical peculiarities of oysters.....	72
proteins.....	164	anatomy.....	65
relative weight.....	152	methods.....	65, 66
role in water transport.....	185	Andrews, E. A., estuary, definition.....	400
speed of contraction.....	165	Folliculinids.....	428
stretching of.....	180	Andrews, J. D., effect of low salinity.....	405
tonus.....	165, 166	<i>Haplosporidium</i>	417
transucent part.....	153, 154	anions, effect on ciliary motion.....	139, 140
white part.....	154	annelids, on oyster beds.....	428
adhesive (holding) epithelium, of adductor muscle.....	160	<i>Anodonta cygnea</i> , amino acids.....	391
ADP (Adenosinediphosphate).....	160	calcification.....	95
adrenalin, effect on cilia.....	168	oxygen debt.....	214
adrenalin, effect on heart.....	140	<i>Anodonta</i> sp., antiserum of gill epithelium.....	141
afferent vein, structure.....	253	blood filtration with pericardium method.....	275
aging of eggs and sperm.....	254, 257	cessation of ciliary motion.....	146
agglutination of sperm.....	338, 340	crystalline style.....	225
Agostini, A., perforating algae.....	426	effect of drugs on cilia.....	140
<i>Alectryonia</i>	6	heart beat.....	249
alfalfa, as food.....	235	heart physiology.....	242
algae, on oyster shells.....	428	innervation of adductor muscle.....	166
perforating.....	426	labial palps.....	113
alimentary tract, length.....	227	oxygen utilization.....	214
alizarin, as calcium stain.....	101		
alkaline phosphatase, in mantle.....	88		

	Page		Page
<i>Anodonta</i> sp.—Continued		axoneme, in cilia	132
pacemaker system of heart	246	Babak, E.	137
subligamental ridge	89	Babor, J. F., nervous system	281
ventilation of the gills	214	bacteria, as food	233
Antheunisse, L. J.	312	food of larvae	376
Anthony, R.	2	retention by gills	233
striated muscles	154	<i>Bacterium coli</i> , synonym for <i>Escherichia coli</i>	442
anthrone, determination of carbohydrates in sea water	198	Baird, R. H., condition index	392
antibacterial agents in mollusks	393	Bandmann, contraction of muscles in <i>Pinna</i>	159
antibiotic properties of <i>Chlorella</i>	409	Bang, F. B., phagocytosis	264
antigens, effect on ciliary motion	141, 142	Ballentine, R., respiration of egg	344
antigens, in <i>C. gigas</i> and <i>C. circumpecta</i> , common and specific	266	Banner, A. H., <i>Thais lamellosa</i>	434
antigens, in <i>Crassostrea</i>	266	Bargeton, M.	82
antigill serum	142	glycogen	386
antimucous serum	142	barnacles	427
antiviral agents in mollusks	393	barnacle larvae, transport of	403
Anton, H. E.	2, 3	Barnes, G. E., adductor of <i>Anodonta</i>	166
anus	71, 226	Barnes, textbook on physiology	248
Apalachicola Bay, destruction of oysters by <i>Stylochus frontalis</i>	438	Barnett, R. J., cytochemistry	344
mean monthly temperature	407	Barrois, T., chemical composition of crystalline style	225
apical sense organ	359	basal body, of cilium	129, 132
arabinose, effect on water transport	199, 200	role in cilia	132
in sea water	199	basal arrangement in ciliated cell	133
stimulating effect on tentacles	294	Battle, H. I., gastric shield	223
aragonite	4, 37, 104	stomach histology	222
affected by strontium and magnesium	103	Bayliss, L. E., adductor of <i>Pecten</i>	165
increased content with temperature	103	Bayliss, W. M., catch mechanism	165
mineralogical identification	103	beak	16
<i>Arbacia</i> , fertilizin	340	Beaven, G. F., milfoil	430
Arcachon oysters, iodine content of	383	bed layer of sediment	411
Arcisz, W., retention of coliform bacteria	233	Belehradek, J., temperature coefficient	249
arginine phosphate	167	temperature, effect of	249
Arrhenius equation	248	Benson, A. A., inhibition of contraction	166
arterial system	253, 254	Benzer, P., calcification	97
arteries	84	Berg, W. E., lytic effect of sperm	341
artery, circumpallial	72	Bergmann, W., cholesterol in oysters	392
ascorbic acid, effect on water transport	199	Berkley, C., chemical composition of crystalline style	225
ascorbic (dehydro-) acid, in sea water	198	crystalline style as a reserve of oxygen	229
ash content	382	Bernard, F., larval shell	364
<i>Astartidae</i>	29	Berthe, C., heart	245
<i>Asterias</i> extract, effect on mantle	294	Bethel, F. M., effect of drugs on cilia	140
<i>Asterias forbesi</i>	437	Bevelander, G., calcification	89, 97
salinity barrier	438	Bhatia, D.	137
<i>Astropecten irradians</i> , closing of valves	165	Biederman, W.	48
Atkins, D., gill's cilia	128-129	Calcium phosphate in mantle	97
ciliary currents	142-143	Bierry, H., glycogen	386
ATP, adenosinetriphosphate, role in muscular contraction	167-168	bioassays	442
atropine, effect on ciliary motion	141	biocoenose	397
auricles	240-241	Birkner, V., zinc determination	385
contraction of	244, 250	birds, destructive to oysters	439
auriculo-ventricular valves	241	bisexual oysters	5
auxocyte	325, 326	bisexual potency, of gonad	316
Awati, P. B.	65	Blum, H. F., protein in blood plasma	391
injection of digestive system	219	blastopore	355
labial palps	111	Blegvad, H., detritus as food	233
nervous system of <i>O. cucullata</i>	281	blisters, in <i>O. iridescens</i>	36
pallial organ	289, 291	on shells	105
axes of growth, changes in	27	blood	259
		circulation	257-258

	Page		Page
granular cells.....	262	Buchholz, chemical analysis of shell.....	39
granulocytes.....	259, 261	Bumpus, D. F., organic matter in phytoplankton..	408
hyaline cells.....	265	Bureau of Mines, spectrographic analysis of meat..	383
specific gravity.....	262	Burkenroad, M. D., hermaphroditism.....	314
blood cells, agglutination.....	260, 262	<i>Thais haemastoma</i>	433
amoeboid movement.....	262	burrowing shrimp.....	439
coalescence.....	264	<i>Busycon</i> , manner of opening bivalve shells.....	435, 436
blood cells, filamentous pseudopod under electron microscope.....	264	number of oysters destroyed per week.....	436
enzymes.....	263	<i>Busycon carica</i>	435
granules.....	264	<i>Busycon canaliculatum</i>	435
heavy metals in cells.....	260	Butler, P. A., inhibition of reproduction by low salinity.....	406
survival in vitro.....	262	mortality of oysters, Mississippi Sound.....	405
blood clots, in connective tissues.....	278	setting.....	372
blood plasma, ionic concentration.....	278	water transport and carbohydrates.....	200
protein content.....	253, 258	butyrase, in stomach.....	230
blood vessels.....	84	Buzzards Bay, oyster bottoms destroyed by dredg- ing.....	398
histology.....	253	byssus gland.....	359
injection of.....	70, 84		
of mantle.....	439	calcification.....	93-98
blue crab.....	17	difference between right and left valve.....	104
Blue Point oyster.....	285	of shell.....	93
Bochenek, M. A., glia cells.....	278	rate of.....	104
body fluid, ionic concentration in.....	37	seasonal variation.....	105
Bøggild, C. B.....	93	theories.....	94
conchiolin secretion.....	103	calcite.....	103
identification of aragonite.....	70, 273	mineralogical identification.....	103
Bojanus organ, kidney.....	372	calcite and gypsum crystals.....	102-103
Bonnot, P., setting.....	421	calcite ostracum, ultrastructure.....	4, 37
boring clam.....	420	calcium 45, use in calcification studies.....	103
boring sponges.....	364	calcium, cytological identification.....	101
Borisiak, A., prodissococonchs.....	426	calcium-secreting cells.....	87
Bornet, E., perforating algae.....	154	calcium, sources of.....	103
Borradaile, L. A.....	416	factors in shell formation.....	98
Boswell, J. L., <i>Dermocystidium</i>	212	use of heavy metal for identification.....	101
Bosworth, M. W., respiratory quotients.....	427	calcium carbonate, mineralogy.....	103
<i>Botryllus schlosseri</i>	399	use in water filtration studies.....	193
bottom, character of muddy.....	429	calcium phosphate, in mantle.....	97
Bouck, G. B., <i>Codium</i> in Long Island.....	403	in new shell.....	97
Bousfield, E. L., transport of larvae.....	95	calcospherites.....	93
Boutan, L., pearl formation.....	157	Calderwood, H. N., glycogen.....	386
Bowden, J., striation in muscle fiber.....	48	method of glycogen determination.....	386
Bowerbank, J. S.....	427	moisture determination by xylene distillation..	385
<i>Bowerbankia imbricata</i>	165	pulp mill pollution.....	443
Boyland, R., adductor of <i>Pecten</i>	437	York River plankton.....	409
brachiolaria.....	404	<i>Callianassa</i> sp.....	439
brackish water, classification of.....	390	Callianassidae, destructive to oyster dikes.....	439
Bradley, H. C., zinc in tissues.....	72	<i>Callinectes sapidus</i>	439
branchial nerve.....	289	Cameron, W. M., definition of an estuary.....	400
microscopic structure.....	39	Camien, M. N., amino acids.....	391
Brandes, R., chemical analysis of shell.....	260	<i>Cancer irroratus</i>	439
Breder, C. M., blood cells.....	214	cane sugar, stimulating effect on tentacles.....	294
Brezina, M., dropping mercury electrode.....	65	carbohydrates.....	381-382
Brooks, W. K.....	180	determination in salt water.....	198-199
Brown, F. A., Jr., cycles of shell movement.....	374	in sea water.....	197
Bruce, J. R., food of larvae.....	160	in Woods Hole sea water.....	199
Brück, A., muscle attachment in <i>Anodonta</i>	136	no effect on water transport.....	199-200
Brücke, E. T.....	427	carbon dioxide, fixation during shell formation..	95-96, 99
Bryozoa, encrusting shells.....	419		
<i>Bucephalus haimeanus</i>			

	Page		Page
carbonic anhydrase.....	103	pulp mill pollution.....	443
role in calcification.....	103	radioactive waste.....	445
<i>Carcinus moenas</i>	439	removal of plankton cells by the gills.....	194
<i>Carcinus</i> , used as food for larvae.....	374	water propulsion by scallop.....	195
<i>Cardium</i> , chemical composition of crystalline style.....	225	York River plankton.....	409
heart beat.....	250	zinc absorption.....	390
labial palps.....	114	chitin, color reaction of Zander.....	222
valves.....	24-25	<i>Chlamydomonas</i> , food of larvae.....	374
<i>Cardium corbis</i>	48	removal by gills.....	194
Carlson, A. J., heart physiology.....	242	<i>Chlamys opercularis</i> , closing of valves.....	165
heart regulation.....	250	chloral hydrate, effect on cilia.....	141
carmine cone method.....	144	<i>Chlorella</i> sp.....	374, 409
carminethrocytes.....	279	<i>Chlorella stigmatophora</i> , as food of larvae.....	375
Carriker, M. R., clam larvae.....	358	cholesterol, in oysters.....	392
conchs.....	433	<i>Chondria</i>	428
distribution of larvae.....	369	Christensen, A. M., oyster crab.....	425
drills.....	430	starfish food used for bait.....	438
manner of opening shell by <i>Busycon</i>	435	chromosomes, diploid number.....	345
<i>Ocenebra</i>	435	number of.....	327
transport of larvae in estuaries.....	402	<i>Chromulina pleiades</i> , as food of larvae.....	375
Carter, G. S.....	137	chronotropic effect of potassium.....	251
<i>Carteria</i> , food of larvae.....	374	Church, A. H., <i>Colpomemia</i>	429
catch mechanism.....	165, 166	Churchill, E. P., Jr.....	65
crystallization hypothesis.....	167	ciliation of labial palps.....	115
cells, secreting calcium.....	87-89	cilia, frontal.....	129
cell lineage.....	345	lateral.....	129
in <i>Crassostrea gigas</i>	348	laterofrontal.....	128
cellulase, absence in oysters.....	230	rate of work.....	145, 146
cement film, in adductor muscle attachment.....	161	structure of.....	132
<i>Ceramium</i>	428	ultrastructure.....	132, 133
cerebral ganglia, excision provokes spawning.....	312	ciliary beat, after spawning.....	138
microscopic structure.....	288	control by temperature.....	137, 138
cerebro-visceral connectives.....	285	frequency.....	137
microscopic structure.....	288	variations of.....	138
Cerruti, A., fecundity of <i>O. edulis</i>	313	ciliary currents, of mantle.....	90, 91
cessation of ciliary motion.....	146	on gill's surface.....	142
<i>Chaetoceras</i> sp.....	409	ciliary motion, crawling method of measuring.....	142
chalky deposits.....	32, 37	effect of chemicals.....	139-141
importance.....	35	in genital ducts.....	300
Korringa's theory.....	34	nervous control of.....	136, 137
location of.....	32, 34, 35	spontaneous cessation.....	106, 107
<i>Chama</i>	29	ciliary tracts.....	143
chambering.....	35	on gill's surface.....	128
chambers, in shell of <i>C. virginica</i>	36	ciliated cell, ultrastructure.....	134
<i>Champia</i>	428	ciliated epithelium, of labial palps.....	111
Chapman, W. Mc., <i>Thais lamellosa</i>	434	cilium, effective stroke.....	135
chemical composition.....	381-382	mechanical properties.....	135
adductor muscle.....	161-164	recovery stroke.....	135
mud shells.....	43	<i>Ciona intestinalis</i> , oxygen uptake.....	211
<i>O. edulis</i>	383	circulation.....	239
proximate.....	381	circulation in estuary.....	401
seasonal and local variation.....	381-382	circumpallial artery.....	76
shell of <i>C. virginica</i>	43	circumpallial nerve.....	285
shell of <i>O. edulis</i>	44	connections.....	85
Chestnut, A. F., proteolytic action in stomach.....	231	microscopic structure.....	288, 289
Child, C. M., cell lineage.....	346	citrate, role in calcification.....	96
Chipman, W. A.....	174	clay, nephelenic gray, use in water filtration studies.....	193
glycogen.....	386	cleavage.....	344-346
method of recording water transport.....	188	spiral.....	347
oil pollution.....	443	Cleland, K. W., gametogenesis.....	325
		ovogenesis in <i>C. commercialis</i>	326
		respiration of egg.....	344

	Page		Page
<i>Cliona</i> , manner of boring.....	420	Conklin, E. G., cell lineage.....	346
pathological effect of.....	421	connective, cerebro-visceral.....	285
cloaca.....	71, 123	microscopic structure.....	288
closing during female spawning.....	306	connective tissue, of the mantle.....	79
Cobb, P. H., labial palps of <i>Anodonta</i>	119	constant level tank, for measuring water transport.....	186
<i>Codium fragile</i> , introduced to New England.....	429	Conway, experiments in rearing larvae.....	374
Coe, W. R., alternation of sex.....	314-316	copepods, parasites in bivalves.....	420
gametogenesis.....	325	copper.....	387
gonad development.....	315	accumulation in tissues.....	384
gonad histology.....	300	cause of green color.....	388
number of chromosomes.....	327	content artificially increased.....	388
primordial gonad.....	324	determination, Biazzo method.....	385
sex classes at first breeding season.....	315, 316	histological localization.....	388
sex ratio.....	324	copperas, use in feeding oysters.....	388
spermatogenesis.....	326	corn starch, as food.....	235
spermatocytes of <i>O. lurida</i>	327	Corpus Christi Bay, Tex., sedimentation.....	412
synapsis in spermatogonia.....	327	Costello, D. P., cleavage.....	347
coelom.....	271	Coulson, E. J., iodine in tissues.....	383
Cole, H. A., fecundity of <i>O. edulis</i>	313	heavy metals in tissues.....	384
gregariousness.....	373	Coupin, H., labial palps.....	114
metamorphosis.....	366-368	crab meat, ground, as fertilizer.....	235
metamorphosis of <i>O. edulis</i>	355	crabs, oyster enemies.....	439
pallial organ of spat.....	292	<i>Crassostrea</i> sp., acrosomal reaction.....	341
rearing of larvae.....	369, 374	generic definition.....	7
setting.....	372	ostia.....	127
<i>Urosalpinx</i> fertility.....	432	promyal chamber.....	123
collagen, in ligament.....	57	salinity tolerance.....	5
tanning of.....	58	striation in muscle fibers.....	154
collagenase, effect on adductor attachment.....	160	<i>Crassostrea angulata</i> , adductor muscle.....	154, 155
Collier, A., effect of carbohydrates on gill activity.....	197-199	ciliary tracts.....	143
Collier, J. R., acrosomal reaction.....	341	stomach histology.....	222
colloidal carbon, for study of ciliary currents.....	90	torch bearing cells near gastric shield.....	222
colloidal graphite.....	115	<i>Crassostrea circumspicata</i> , antigens.....	266
Colorado River, sedimentation at mouth.....	412	<i>Crassostrea commercialis</i> , diagnosis of species.....	8
<i>Colpomenia sinuosa</i> (oyster thief).....	429	gametogenesis.....	325
Columbia Southern Corporation, analysis of shell.....	43	glycolysis in muscle extracts.....	168
Colwin, A., acrosomal reaction.....	341	inorganic salts in adductor muscle.....	162
Colwin, L. H., acrosomal reaction.....	341	male spawning.....	310
commensals of oysters.....	420, 430	ovogenesis.....	326
commisure, cerebral.....	72, 284	<i>Crassostrea gigas</i> , antigens.....	266
competitors, effect on productivity.....	430	chemical composition of crystalline style.....	226
competitors, of oysters.....	420, 430	diagnosis of species.....	7
conchoid curve.....	23	hermaphroditism.....	314
conchiolin.....	37, 39	male spawning.....	310, 311
amino acids content.....	41	setting.....	372
chemical composition.....	39	spawning.....	309
in ligament.....	57	<i>Crassostrea rhizophorae</i> , diagnosis of species.....	7
in prismatic layer.....	39, 40	<i>Crassostrea rivularis</i>	28
in <i>C. angulata</i> and <i>O. edulis</i>	41	diagnosis of species.....	8
percentage in shell.....	40	<i>Crassostrea Sacco</i>	3
role in calcification.....	40	<i>Crassostrea virginica</i> , cessation of ciliary motion.....	146, 147
staining properties.....	39	ciliary tracts.....	143
test for chitin.....	39	diagnosis of species.....	7
ultrastructure.....	39	effect of adrenalin on cilia.....	140, 141
conchiolin gland.....	86, 88	effect of atropine on ciliary motion.....	141
conchiolin secreting cells.....	86	gametogenesis.....	325
condition index.....	392	salinity range.....	403
in <i>C. gigas</i>	393	setting in jars.....	373
in <i>O. lurida</i>	393	sorting of food by labial palps.....	114
method of determination.....	392	Creac'h, P. V., phosphorous in shells of <i>O. edulis</i>	44
significance of.....	392	creatine phosphate.....	167
		Creighton, C.....	82

	Page		Page
<i>Crepidula</i> , sp.....	426	<i>Dermocystidium</i> , cause of mortality.....	415
<i>Crepidula fornicata</i> , introduction to Europe.....	426	effect on oysters.....	416
critical temperature of spawning.....	309	growth in tissue culture.....	416
Crofts, D. R., calcification theory.....	94	occurrence in various bivalves.....	416
cross striated muscles.....	154	<i>Dermocystidium marinum</i> , diagnosis of species.....	416
crossing over, in ovocyte of <i>C. commercialis</i>	326	DeRobertis, E. D. P.....	133, 164
Crozier, W. J.....	30, 248	destruction of oyster bottoms by man.....	440-441
<i>Cryptomonas</i> , affected by style enzyme.....	231	detritus, as food.....	232
crystalline style.....	71, 223-225	development rate.....	349-350
appearance.....	224	DeWaele, calcification theory.....	95
chemical composition.....	225	dextrose, effect on R. Q.....	213
dissolution.....	225	effect on water transport.....	199
formation.....	225	diamond lattice pattern, in dark muscle fibers.....	154
in larva.....	359	in muscle fibrillae.....	157
pH of.....	230	diantlin.....	312
role in feeding.....	225	diapedesis.....	83, 185, 239
rotation.....	225	diastole.....	244
topography.....	223-224	diatoms, as food.....	231, 232
crystalline style sac.....	219-220	on oyster shells.....	428
secretion.....	225	diatom growth, stimulated by pulp mill pollution..	444
ctenidia.....	121	<i>Dicrateria</i> , sp., as food of larvae.....	375
Cuénot, L., excretion.....	274, 279	Diederichs, W., nervous control of heart beat.....	250
cumarin, detected by tentacles.....	294	digestion.....	219, 228-231
curare, effect on heart.....	253	extracellular.....	231
currents, nontidal residual.....	402, 403	digestive diverticula.....	71, 226
currents, turbulent effect of.....	403	ducts.....	226
current indicators.....	190, 192	histology.....	226
<i>Cyclas (Sphaerium)</i> , cessation of ciliary motion.....	146	pH of extracts.....	231
cycles of shell movement, daily.....	180	digestive system.....	219
Dahmen, P., nervous system of <i>O. chilensis</i>	281	digitalin, effect on ciliary motion.....	141
pallial organ.....	291	dimensions of shell.....	20
stomach histology.....	222	Dimitroff, V. T., spirochaetes.....	426
Dakin, W. J., calcification theory.....	94	Dimick, R. E., Yakina Bay oyster beds.....	402
mantle muscles.....	84	<i>Diplothyra</i> , in Texas.....	421
Dall, W. H.....	2, 48	<i>Diplothyra smithii</i> , synonym <i>Martesia</i>	421
Damariscotta River.....	21	direction of growth.....	25
shell heap.....	440	change in.....	27-29
Dan, J. C., aerosomal reaction.....	341	direction plane.....	25
Danielli, J. F., cytochemistry.....	344	in <i>Pecten</i>	24
Daniels, F., dropping mercury electrodes.....	214	disease.....	415
Dantan, J. L., fecundity of <i>O. edulis</i>	313	Divaris, G. A., heart physiology.....	246
larval development of <i>O. edulis</i>	355	heart beat.....	251
<i>Dasybatis dipterus</i> , synonym <i>Amphovistius</i>	439	Dobson, G. C., capacity of reservoirs.....	412
Davaine, C., metamorphosis of larva.....	366	Dollfus, R. P., foot disease.....	418
Davis, H. C., food of larvae.....	375	<i>Dosinia discus</i>	30
reactions of larvae.....	371	Dotterweich, H., calcification.....	96
rearing of larvae in laboratory.....	375	Douville, H.....	39
Dean, B., oyster bottoms.....	398	Dow Chemical Company, analysis of shell.....	44
Dean, D., enzyme in style.....	231	DPN (diphosphopyridine nucleotide) in muscle.....	168
pH of crystalline style.....	231	dredging, effect on oyster bottom.....	398
Deane, H. W., cytochemistry.....	344	<i>Dreissensia (Dreissensia) polymorpha</i> , develop- ment.....	346, 368
DeBoer, S., heart.....	243	neurosecretion.....	312
pacemaker in <i>Mytilus</i> heart.....	246	Drew, G. H., blood cells of bivalves.....	262
decompression, effect on ciliary beat.....	142	drills, destructiveness.....	430
Delauney, H., excretion.....	274	dispersal of.....	430
uric acid in <i>Mya</i> and <i>C. angulata</i>	277	effect of low salinity.....	430
demibranchs.....	121	Drinnan, R. E., Malpeque Bay disease.....	4'5
movements of.....	131	drop counter, electric.....	190
<i>Dendostrea</i>	6	drop counting technique.....	197
Denison, J. G., <i>Hexamita</i>	419	drugs, effect on ciliary motion.....	140
Dennell, R.....	58	effect on heart.....	251, 252

	Page		Page
drum fish, destructive to oysters.....	439	erosion, of bottom.....	412
dry weight.....	382-383	Escherichia coli.....	442
Duchâteau, G., amino acids.....	391	retention by gills.....	233
structure of nacre.....	40	retention by oyster body.....	190
ducks, destructive to <i>O. lurida</i>	439	eserine, effect on ciliary motion.....	141
duck farms, pollution by.....	444	effect on heart.....	252
dumping vessel, use in recording water transport.....	188	esophagus.....	71, 219
Duvernoy, M., nervous system.....	281	Esser, W., innervation of heart.....	242
Eble, A. F., injection of blood vessels.....	253	pacemaker system of heart.....	246
Edmundson, C. H., crystalline style.....	225	estuary, definition.....	400
eel grass.....	429	distribution of pollutant.....	401-402
See: <i>Zostera</i>		"inner end".....	401
Egami, N., transplantation of gonad.....	317	nontidal currents.....	402
egg, cytochrome oxidase.....	344	silting of.....	411
fertilized.....	342	structure of.....	400
mature.....	327	types of.....	402
metabolic gradient.....	344	Eulamellibranchia.....	121
polarity of.....	344	<i>Eupleura caudata</i>	432
respiration rate.....	344	reproduction in York River, Va.....	432
egg water.....	338	evaluation of factors, method.....	445
Eiger, M., electrocardiogram.....	244	Evans, C. L.....	164
Einstein, H. A., sedimentation.....	411	<i>Evasterias troschelii</i>	438
elastic fibrils, in connective tissue.....	79	excretion of dyes.....	274
electric shock, effect on ciliary motion.....	147	excretory cells.....	273
electrocardiogram.....	244	excretory system.....	271
electron microscope, in study of cilia.....	132	anatomical terminology.....	273
Eliassen, E., respiration in <i>O. edulis</i>	213	anatomy.....	271, 273
<i>Elliptio complanatus</i> , cilia of.....	133	histology.....	273
Elsey, C. R., accessory heart.....	258	physiology.....	274
pallial organ.....	291	topography.....	272
promyal chamber.....	123, 125	extracardial regulation.....	250
spawning induced in oyster bottom.....	320	eye, larval.....	360, 361
tentacles.....	79	eyespot, in <i>O. edulis</i>	368
Elssner, E., calcification.....	96	Eysseric-Lafon, M., amino acids in conchiolin.....	41, 103
Elvehjem, C. A., copper determination.....	385	factors, negative.....	399, 409, 446
Emeljanenko, P., excretion of dyes.....	274	factors, positive.....	399
endomysium.....	153	factors of environment, combined effect of.....	445
Engle, J. B., effect of <i>P. websteri</i> on oysters.....	424	Fairbanks, L. D., excretory system.....	271
glycogen.....	386	loss of fluids.....	385
influence of environment on gonad.....	299	osmoregulation in <i>C. virginica</i>	278
inhibition of feeding by microorganisms.....	409	falling drop method, for specific gravity determina- tion of blood.....	265
microorganisms undigested by oyster.....	234	Fasten, N., Yakima River oysters.....	402
pulp mill pollution.....	443	fat, content.....	387
York River plankton.....	409	hydrolysis.....	230
Engstrom, A.....	164	in vesicular cells.....	81-82
<i>Ensis</i> sp., crystalline style.....	224	fattening, due to <i>Nitzschella</i>	233
<i>Ensis ensis</i> , striation in muscle fibers.....	157	fatigue, of muscle.....	167
<i>Enteromorpha</i>	428	Fausek, V., pigmentation.....	279
enzymes, in blood cells.....	264	Fawcett, D. W.....	133
in stomach.....	229	fecal ribbon, rate of formation.....	228
proteolytic.....	230	feces.....	228
sucroclastic.....	230	fecundity, larviparous oysters.....	313
eosinophilic cells, on labial palps.....	111	oviparous oysters.....	313
epibranchial chamber.....	70-71, 122	Feder, H. M., starfish opening its prey.....	438
epithelium, holding (adhesive) in muscle attach- ment.....	160	Federighi, H., heart.....	248
Epstein, S., effect of temperature on aragonite formation.....	104	heart beat.....	247
aragonite in shells.....	104	feeding, artificial.....	234
Erdmann, W., larval development <i>O. edulis</i>	355	adverse effect of heavy concentration of microorganisms.....	234-235
veliger, <i>O. edulis</i>	356	inhibition by <i>Chlorella</i>	234-235

	Page		Page
feeding, artificial—Continued		Føyn, E., dropping mercury electrodes	214
inhibition by high concentration of micro-organisms	409	Franc, A., excretion	274
inhibition by low salinity	405	excretory system	271
Feltham, C. B., bacteria as food	233	heart	240
femaleness	315	pallial organ	291
female spawning, specificity	309	freezing, effect on oyster community	399
fences, to ward off sting rays	439	Freidenfelt, T., nervous system	281
fertilization	338	glia cells	285
fertilization membrane	343	Fremy, E.	39
fertilizin	340	Frey, D. C., oyster bottoms, Potomac River	398
properties of	341	Friza, F.	58
fibers, white muscle	154	fructose, effect on water transport	199
fibrils, arrangement of in white muscles	154	Fujita, T.	347
filament, of acrosome	341	cell lineage	348
filament, of the gills	126	larval development, <i>C. gigas</i>	355
Filibranchia	121	fumaric acid, in calcification	99
filtration rate, into pericardium	274	fungi, effect on oyster larvae	376
Finean, J. B.	164		
Fingerman, M., excretion system	271	Gaarder, T., chemical composition	383
loss of fluids	385	fat content in <i>O. edulis</i>	387
osmoregulation in <i>C. virginica</i>	278	glycogen	387
Fish, P. A., storage of fat in birds and mammals	230	proteins in <i>O. edulis</i>	391
filtrose	374	rearing of larvae	374
flagellates, as food of larvae	375	respiration in <i>O. edulis</i>	213
culture, as food for larvae	375	setting	369
naked, as food	233	Gabe, M., neurosecretory cells	293
Flahault, C., perforating algae	426	Gage, S. H., fat storage in birds and mammals	230
flatworms	438	Galileo theorem, applied to growth	27
destructiveness	438-439	Galli-Valerio, B., antiserum effect on ciliary motion	141
flocculation, of silt	411	Galtsoff, P. S.	65
flood, Mobile Bay	405	carmine cone method	144
Florin, M.	40, 54	constant level tank	186
amino acids	391	duration of shell opening	174
excreta	276	effect of pH on oyster cilia	140
protein in blood plasma	391	effect of temperature on shell movement	174
fluids, in tissues	385	evaluation of environmental factors	445
loss after shucking	385	flood in Mobile Bay	405
flushing, of estuary	401, 406	glycogen	386
Fol, H., mantle muscles	83	method of recording water transport	188
folding, of muscle fibers	158-159	<i>Nematopsis</i> distribution	419
follicle cells	300	<i>Ocenebra</i> , introduction from Japan	435
<i>Folliculina</i> , on oyster shells	428	<i>O. equestris</i> , salinity range	404
folliculinids, in Chesapeake Bay	428	oil pollution	443
food	231	passage of eggs through gills	304
availability	408	pollution of Olympia oyster beds	402
as factor of environment	408, 409	pulp mill pollution	443
of <i>O. edulis</i>	232	red tide	409
selection	233	release of sex cells	303
volumetric determination of gut and stomach content	232	respiration	201
sorting by labial palps	115	respiration affected by oxygen tension	214
food factor, evaluation of	408	retention of coliform bacteria	233
foot, larval	361	setting	369
reabsorption of	368	sex change in adults	316
foot disease, in <i>C. virginica</i>	418	shell movement, effect of daylight	175
symptoms	418	source of calcium	103
synonym of shell disease	417	spawning	304
Fosse, R., excretion	274	spawning of <i>C. gigas</i> and <i>O. cucullata</i>	306
fouling	426	starfish	437
fouling of shells, Oyster River, Mass.	428	Texas oyster bottoms	412
Fox, D. L., water propulsion by <i>Mytilus californianus</i>	193	water wheel	190
		York River plankton	409
		Galtsoff, P. S. and A. S. Merrill	2

	Page		Page
gametogenesis.....	324	in muscular contraction.....	167
gamones.....	338	in <i>O. edulis</i>	82
ganglia, cerebral.....	72, 284	in Virginia oysters.....	386
pedal in larva.....	360	reagent for.....	81, 385
ganglion cells, in myocardium.....	242	seasonal changes.....	387
ganglion, visceral in Ostreidae.....	71, 281, 283-284, 360	utilization of.....	81-82
microscopic structure.....	285-286	variations in content.....	386
Garner, R., nervous system.....	281	glycogen cycle, in <i>O. edulis</i> and <i>C. angulata</i>	386
Garstang, W., larval adaptation.....	363	glycolysis, in muscle.....	168
Gartkiewicz, S. cessation of ciliary motion.....	146	Gmelin, J. F.....	1
heart.....	250	goblet cells.....	84
gastric shield.....	221-222	Goldberg, E. D. filtration rate and oxygen consumption.....	408
function.....	223	rate of removal of graphite.....	194
resistance to potassium hydroxide.....	222	<i>Gomontia polyrrhiza</i>	426
gastropods, carnivorous.....	430, 436	Gomori method, for localization of alkaline phosphate.....	88
gastrulation.....	347	gonads.....	71
Gavard, D., artificial detritus as food.....	234	gonad, ambisexual (bisexual).....	324
gelatin, injection with.....	219	development.....	315
genera, of living oysters.....	6	follicles.....	300
generative curve.....	24-25	hermaphroditic.....	326
genital canals.....	300	histology.....	299
George, W. C., fat digestion.....	230	indifferent stage.....	302
geotaxis, in larvae.....	372	phases.....	315
germ cells, primordial.....	299, 325	primary.....	314
germinal epithelium.....	300	primary, transformation of.....	315
Giard, A., foot disease.....	418	primordial.....	324
Gilchrist, J., nervous system.....	281	reabsorption.....	302
gill axis.....	121	thickness.....	297
gill cavity.....	66	transplantation.....	317
gill filaments.....	125-127	volume.....	299
gill lamellae.....	121, 125	weight.....	299
gills.....	70, 121	gonad development, effect of environment.....	298
anatomy.....	121	gonad development seasonal variation.....	298
blood vessels of.....	71	suppression by pollution.....	299
ciliary tracts.....	128	gonia.....	300
currents.....	123	gonoduct.....	303
degenerate in Septibranchia.....	121	Goodalia.....	29
degrees of complexity.....	121	Gorgy, S., organic matter in phytoplankton.....	408
efficiency in plankton removal.....	194	Gothlin, G. F.....	137
function of.....	72, 185	Gouzon, B., glycogen.....	386
histology.....	126-127	<i>Gracillaria confervoides</i>	428
interfilamentar junction.....	125	Graham, A., oxydase in oyster.....	230
interlamellar septa.....	125	Grant, D. C.....	60
muscles.....	125, 130	granulocytes.....	259, 262
muscles used in water transport.....	185	Grave, C., condition index.....	392
plica.....	125	nerve-like apparatus of gills.....	137
rods.....	125-126	rootlets of cilia.....	134
ventilation of, steady state.....	195	Gray, J. E.....	2, 32
zinc content.....	390	ciliary motion.....	139
Glaister, D., muscle contraction.....	167	transverse elasticity of cilia.....	135
glia cells.....	285	Great South Bay, Long Island, N.Y.....	235
Glick, D., localization of copper.....	388	<i>Chlorella</i> bloom.....	409
glucose, absorption.....	231	green color associated with industrial pollution.....	384
glycine, in conchiolin.....	41	green oysters.....	384
glycogen and solids.....	386	green pigment, isolation of.....	388
glycogen, in adductor muscle.....	162	Greenberg, M. J., acetylcholine action on heart.....	252
annual cycles.....	386-387	gregariousness of larvae.....	373
determination of.....	385	Gregoire, C.....	39, 40, 54
disappearance of.....	82	<i>Griffisia</i>	428
in connective tissue.....	81-83		
in Louisiana oysters.....	386		

	Page		Page
Grobben, C., excretion of dyes	274	excised	250
ground substance, connective tissue	79	frequency	249
growth, changes in axes	27	inhibition	249
of shell	26	methods of study	247-248
inversion	29	recorded in situ	247
radii	26	temperature characteristics	248
rings	26	heart preparation in bioassays	443
Gruntzner's model of catch mechanism	165	heavy metals, analytical procedures	384-385
<i>Gryphaea angulata</i>	2	geographical variation	384
<i>Gryphaea arcuata</i>	2	in oyster meat	383-384
<i>Gryphaea</i> , ruling of International Commission	3	localization in different organs	390
<i>Gryphaea</i> vs. <i>Crassostrea</i>	3	in New England oysters	384
Gudger, E. W., attacks of starfish	438	seasonal differences	390
Gunter G.	3, 6	Hecht, S., sensory stimulation in <i>Mya</i> and <i>Pholas</i>	293-294
sedimentation	412	Hedgpeth, J. W., oyster bottoms	398
Gutheil, F., crystalline style	225	salinity and temperature change	405
gastric shield formation	222	Heider, K., sterroblastula	347
gutters, between labial palps	111	<i>Helix</i> , presence of cellulase	230
<i>Gymnodinium breve</i> , cause of mortality	409	<i>Helix pomatia</i> , calcification of epiphragm	95
Haas, F.	48	Hemming, F.	2
excretory system	273	hermaphrodites	314
pallial organ	291	hermaphroditism	318
habitat	5	frequency in <i>C. virginica</i>	314
Hagmeier, A., oyster bottoms	398	Hers, M. J., oxygen debt	214
Hagstrom, B. E., jelly coat removal from egg	340	heteroagglutination of oyster sperm	340
Hall, C. E., paramyosin in oyster	164	<i>Hexamita</i>	419
Hamburger, V., embryology textbook	347	Hirata, A. A., calcification	97, 103
Hammen, C. S., calcification	99	Hoagland, H., textbook	248
Hanson, J., helical striation in muscle fibers	155, 157	Hoek, P. P. C., discovery of hermaphroditism in	
muscular tension	167	oysters	314
Haplosporidia	417	food of oysters	231
<i>Haplosporidium costale</i>	417	genital canals	300
Harrison, C. W.	43	Hopkins, A. E.	77
heavy metals in oysters	384	accessory heart	258
Hartman, O., annelids on oyster shells	422, 428	adductor muscle	154
Harvey, H. W., pigment units	409	cloacal current	405
Hatanaka, M., rearing of larvae	375	condition index	392
Haven, D., effect of low salinity	405	current indicator	190-193
Hayashi, T., hypothesis of catch mechanism	167	duration of shell opening	174
Hays, J. T., inhibition in adductor of <i>Pecten</i>	166	fecundity of <i>O. lurida</i>	313
Hazelhoff, E. H., utilization of oxygen	214	function of eye	371
heart	70, 240-241	pollution of Olympia oyster beds	401
accessory	258	sensory stimulation	293-294
automatism	242, 244-245	shell movement, effect of temperature	175
effect of adrenaline	253	tentacles	79
effect of curare	253	Hopkins, H. S.	153
effect of drugs	251	oxygen consumption by tissues	200
effect of hydrostatic pressure	244	Hopkins, J. C., water filtration by scallop	194-195
fatigue	247	Hopkins, S. H., glycogen in Louisiana oysters	386
ganglion cells	241	oyster crab	425
innervation	241	<i>Polydora</i> larvae	423
larval	361	Horst, R., larval development, <i>O. edulis</i>	355
nerve fibers	242	Hotchkiss, M., decomposition of sediments	413
pacemaker system	245	Hotelling's formula, concentration of pollutant in	
physiology	242	estuary	401
rate of beating in larva	361	Houet, R., excreta	276
stimulating nerves	248	Hubendick, B., adhesive epithelium	160
use in bioassays	252	Humphrey, G. F., inorganic salts in adductor	
heart beat	242	muscle	162
effect of mineral salts	251	chemical changes in oyster adductor	168
effect of pH	251	Hunter, A. C.	43
		heavy metals in oysters	384

	Page		Page
Hunter, W. R.	60	Jakubski, A. W., glia cells	286
Hutchins, L. W., Bryozoa	427	Jakus, M. A., paramyosin in oyster	164
Huxley, J. S.	26	James River, Va., freshets	405
Huxley, H. E., sliding theory of muscle contraction	167	Jhering, W., nervous system	281
Huxley, T. H., larval development, <i>O. edulis</i>	355	jelly coat of egg	340
metamorphosis	366	Jensen, E. T., pollution manual	442
hyaline cells, of blood	261	Jensen, P. B., role of <i>Zostera</i>	233
<i>Hydroides hexagonus</i> , acrosomal reaction	341	Jodrey, L. H., calcification	97
hydrographic climate	405	Johrson, W. H., hypothesis of catch mechanism	166
<i>Hyella caespitosa</i>	426	Johnson, T. W., <i>Dermocystidium</i>	416
Hyman, L. H., flatworms	438	marine fungi	376
hyostracum	4, 37	Jones, D. B., proteins	391
		vitamins	391
Ikemoto, N., cross striated fiber	154	Jones, E. W. K., gregariousness	373
Imai, T., rearing of larvae	375	larvae rearing	369
productivity reduced by feces	413	setting	372
immunological reactions, method	265	Jørgensen, C. B., filtration rate and oxygen consumption	408
incubatory species	4	oxygen uptake by oyster	210-211
index of rejected names	3	rate of removal of graphite by oyster	194
India ink, excretion by phagocytes	279	Joubin, L., oyster bottoms	398
Indians, use of oysters by	440	Jullien, A., heart physiology	242
indifferent (residual) cells	325	acetylcholine content of heart	252
indigothrocytes	274	adenaline effect on heart	253
indigo-carmin, excreted by kidney	274	curare effect on heart	253
industrial waste, number of outlets	443	effect of potassium on heart	251
Ingersoll, E.	21	effect of acetylcholine	252
Ingram, W. M., pollution bibliography	442	heart	243
inhibitory axons in <i>Pecten</i>	166	pacemaker system of heart	246
injection, for anatomical studies	66	veratrine effect on heart	253
inorganic constituents of meat	383-384	Just, E. E., spawning of <i>Nereis</i>	319
inorganic salts, in adductor muscle	162		
insemination	343	Kagawa, K., effect of acetylcholine on ciliary motion	141
International Commission on Zoological Nomenclature	3	Kahlbrock, M.	164
internephridial passage	271	electron microscopy of muscle	157
intersexuality	324	Kahn, J. S., hypothesis of catch mechanism	166
intestine	71	Kändler, R., oyster bottoms	398
intracellular fibrillae of gills, existence doubtful	137	rearing of larvae	374
invagination	355	Kawaguit, S., cross striated muscle fibers	154
inversion of growth	29	Kellogg, J. L., adductor muscle	154
iodine	383	ciliary currents	142
iodine content, artificially increased	383	hermaphroditism	314
in <i>O. lurida</i>	383	labial palps	114
iodoacetate, inhibitor of lactic acid formation	167	muscle fiber	154
ions, monovalent, effect on ciliary motion	139	promyal chamber	123
ionic concentration in blood plasma	278	Kerly, M., muscle contraction	167
ionic regulation	278	Ketchum, B. H., circulation in estuary	401
Irisawa, H., heart beat	251	Keys, A. B., respiration chamber	201
iron content, artificially increased	388	kidney	70-71
iron determination, Kennedy's method	385	microscopic structure	272
iron, excretion by epithelial cells	390	reservoir	272
histological localization	388	reservoir lining of	273
ingestion by leucocytes	388	Kincaid, T., bacteria as food	233
seasonal changes	387-388	<i>Thais lamellosa</i>	432
iron saccharate, use in digestion experiments	228	Kitching, J. A., effect on pressure on ciliary motion	142
<i>IsochrYSIS</i> , not affected by style enzyme	231	Knight, M., food of larvae	374
<i>IsochrYSIS galbana</i> , as food of oyster larvae	375	Kobayashi, H., cytochrome oxidase in egg	344
Ito, S., productivity reduced by feces	413	Kobayashi, M., heart beat	251
		Kobayashi, S., glycogen in adductor muscle	164
Jackson, R. T.	48	Koch, H. J., oxygen debt	214
adductor muscles of larva	368	Koehring, V., heart beat	247, 249
metamorphosis	366	Kohler, M. A., sedimentation	410
Jahnes, W. G., antibacterial agents	393		

	Page		Page
Koizumi, S., serological differences inivalves.....	266	attachment.....	365
Koller, G., absorption of glucose.....	231	carried upstream.....	402
Korringa, P., annelids on oyster shell.....	428	classification.....	364
chalky deposits.....	32	D-shaped.....	357
conchiolin content.....	39	dispersal in sea.....	369
<i>Crepidula</i> in Europe.....	426	distribution in relation to tides.....	369
Folliculinids.....	428	early shape of.....	357
larva <i>O. edulis</i>	355	effect of salinity on growth.....	370
lunar periodicity in breeding.....	319	emergence from egg.....	350
<i>Polydora ciliata</i>	422	eyed.....	357-359
setting.....	369	feeding, <i>O. edulis</i>	374
shell disease in Dutch oysters.....	418	food requirements.....	375
survival and loss of larvae.....	371	fully developed, <i>C. virginica</i>	362
swarming.....	306	immobilized.....	366
Korschelt, E., sterroblastula.....	347	loss of during pelagic life.....	370
Kowalevski, A., excretion of dyes.....	274, 279	mechanism of transport in estuaries.....	402-403
Kraft, H., velocity of effective stroke of cilium.....	135	metamorphosis.....	365
Krijgsman, B. J., heart physiology.....	242	mortality.....	370
heart beat.....	251	newly hatched.....	348-349
Krogh, A., inorganic salts in adductor muscle.....	162	number depending on dimensions of adult.....	313
organic substances in sea water.....	197	percent reaching setting.....	371
respiratory quotient.....	212	rate of loss during tidal cycle.....	371
Kumano, M., osmoregulation.....	278	reaction to environment.....	371
Kurtzman, C. H., chemical composition.....	381	reaction to surface.....	373
Kuyper, A. C., calcification theory.....	94	rearing in laboratory.....	374
LD-50 lethal concentration killing 50 percent.....	445	shape of early stage.....	357
labial palps.....	70	stimulation by light.....	371
anatomy.....	111	straight-hinge.....	357
<i>Anodonta</i> , autonomous responses.....	118	survival.....	370
blood supply.....	113	transport to up-estuary.....	402-403
ciliary currents.....	114	vertical distribution in estuaries.....	369-370
currents on ridged surface.....	117-118	vertical distribution in rearing tanks.....	373
currents on smooth surface.....	117-118	larval development.....	355
direction of currents.....	114	larval foot.....	359
function of ridges.....	114	larval organs, fate of.....	367-368
histology.....	111	larval shell.....	6
innervation.....	113	latent period, of stimulation of tentacles.....	294
method of study of ciliary current.....	115	lateral cilia, mechanical work.....	143-145
muscles of.....	115	laterofrontal cilia, ultrastructure of.....	133-134
parth of particles across ridges.....	116-117	latex, injection into promyal chamber.....	123
reactions of.....	118	injection in digestive tract.....	219
ridges.....	112	use in anatomical studies.....	66
role of mucus.....	116, 118	Latrigue, A.....	21
surfaces of.....	111	Lavoie, M. E., force exerted by starfish opening oysters.....	438
Lacaze-Duthiers, H., excretory system.....	272	Logie, R. R., Malpeque Bay disease.....	415
lactic acid, in muscle.....	167	Lee, C. F., chemical composition.....	381
Laguna Madre, Tex., sedimentation.....	412	leech, <i>Stylochus frontalis</i>	438
Lajtha, A., phosphatase activity in muscle.....	168	Leenhardt, H.....	65
Lamarck, J. B. P., species of oysters.....	1, 2, 3	gastric shield.....	222
Lambert, M. B., Bryozoa.....	427	labial palps.....	113
laminar flow.....	410	nervous system of <i>C. angulata</i>	281
Lamont, H. C., hypothesis of catch mechanism.....	167	periostracal groove.....	86
Lamy, E.....	2	stomach histology.....	222
Landau, H., <i>Nematopsis</i> distribution.....	419	Legendre, R., effect of moon on spawning.....	319
Landon, W. A., bacteria as food.....	233	Leisure, C. E., coordination of ciliary motion.....	137
Lang, A.....	122	Lenhossék, M. V., role of basal bodies in cilia.....	132
Lankester, E. R., green oysters.....	384	Leneman, E. E., coordination of ciliary motion.....	137
larva, adaptation to pelagic life.....	362	leptonema stage in spermatogenesis.....	327
advanced stage.....	357-358	Letellier, A., excretion.....	274
anatomy, <i>O. edulis</i>	359	urinary function.....	277
artificial rearing.....	374	Levine, H., heavy metals.....	384

	Page		Page
Lewis, G. J., anthrone for carbohydrate determination.....	198-199	spawning at low temperatures.....	307
Lewis, R. N., inhibition of adductor of <i>Pecten</i>	166	starfish.....	437
Lewis, S. A., ciliation of labial palps.....	115	starfish salinity barrier.....	438
Lewis, W., proteins.....	391	<i>Lopha</i>	6
Li, C. P., antimicrobial agents.....	393	Lotsy, J. P., food of the oyster.....	232
ligament.....	48	Loubatié, R., iodine in Arcachon oysters.....	383
alvicular.....	48	low salinity, effect on Virginia oysters.....	405
calcification of.....	58	Lowy, J., helical striation in muscle fiber.....	155, 157
chemical composition.....	56	muscular tension.....	167
conchiolin content.....	57	tonus hypothesis.....	166
determination of elastic force.....	59	Lubet, P., inhibition of spawning.....	312
effect of drying on elasticity.....	61	Lucas, A. M.....	137
elasticity.....	59	<i>Lucina</i>	29
function of.....	48-49	lunar cycle, shell movement.....	180
internal.....	48	lunar periodicity, of spawning.....	318
lamellae.....	49-50	Lunz, G. R., crabs, oyster pest.....	439
lines of stress.....	49	mud worm in South Carolina.....	424
moment of thrust (formula).....	60	<i>Lycosoma</i>	428
parts of.....	48	lysin, in sperm.....	341
pivotal axis.....	49	McAtee, W. L., destruction of oysters by birds.....	439
pulling force.....	59	McDermott, J. J.....	425
thrust of.....	59	McDonald, J. F., coordination of ciliary motion.....	137
ultrastructure of.....	51	McGrady, J., food of the oyster.....	232
ligamental ridge.....	66	McMannus, reagent for glycogen.....	79
light, effect on shell movement.....	175	McMillin, H. C., pollution of Olympia oyster beds.....	401
Lillie, F. R., cell lineage.....	346	setting.....	369
egg water.....	338	M cell, second somotoblast.....	348
spawning of <i>Nereis</i>	319	M-Nadi reaction.....	344
Lillie, R. D., histological localization of copper.....	388	Macbride, E. W., embryology textbook.....	347
Lillie, R. S., ciliary motion.....	139	veliger.....	356
<i>Lima</i> , cross striated muscles.....	154	Mackenzie, C. L., <i>Eupleura</i>	432
<i>Limnaea</i> , cellulase in.....	230	Mackin, J. G., <i>Dermocystidium</i>	415
Lindow, C. W., copper determination.....	385	glycogen.....	386
Linnaeus, C., taxonomy of oysters.....	1	<i>Hexamita</i>	419
Linsley, R. K., sedimentation.....	410	MSX.....	417
lipase.....	230	Mackintosh, N. A., crystalline style formation in gastropods.....	225
lipids.....	381	macromeres.....	345-346
Lison, L., mathematical analysis of shape of shells.....	23-27	Magnan, C., glycogen.....	386
List, T., crystalline style rotation.....	225	magnesium, effect on lateral cilia.....	139
labial palps.....	113	Makino, K., antiserum effect on ciliary motion.....	141
mantle attachment to shell.....	88	Makino, M., immunological reactions in mollusks.....	265
periostacial groove.....	86	male spawning, stimulated by thyroidin.....	311
subligamental ridge.....	89	maleness.....	315
locking mechanism of muscle.....	165	Malpeque Bay disease.....	415
Loewenstam, H. A., aragonite in shell.....	104	maltose, effect on water transport.....	199
logarithmic spiral of shells.....	22-25	man, as predator of oyster.....	440
Long, J. B., Yakina River oyster beds.....	402	manganese.....	387-390
Long Island Sound, mean monthly water temperature.....	407	determination by Richard's method.....	385
Loosanoff, V. L., adaption to salinity changes.....	406	localization in tissues.....	390
adverse effect of heavy concentrations of microorganisms on feeding.....	235	Manigault, P., role of phosphatase.....	98
effect of tide on shell movement.....	175	Manning, J. H., vertical distribution of larvae.....	402
effect of <i>Polydora websteri</i> on oysters.....	424	Mansour-Bek, J. J., proteolytic action in <i>Pinctada</i>	231
fungi parasites on larvae.....	376	mantle.....	66-74
habitat of <i>Sytilochus ellipticus</i>	430	anatomy.....	74
influence of environment on gonads.....	299	appearance.....	74
inhibition of feeding by microorganisms.....	409	cavity.....	66
microorganisms not digested by oyster.....	234	color of.....	68
rearing of larvae in the laboratory.....	355, 375	discharge areas.....	90
selection of food.....	233	edges.....	66-75
		epithelium.....	84

	Page		Page
mantle—Continued		mid-gut	226
folds	76	milfoil, invasion of	430
function of	72, 74, 75	Millar, R. H., fecundity of <i>O. edulis</i>	313
lobes of	76, 77	Miller, C. E., penetrometer	399
mantle-shell preparation	99-100	Miramachi Estuary, transport of barnacle larvae	403
nerve net	86	Mironov, G.N., turbidity determination	36-37
pigmentation	74	Mironov's current indicator	191
position in spawning female	303-304	Mississippi Sound, mortality of oysters due to flood	405
reduplication	77	Mitchell, H. D.	48
role in formation of shell	91	mitochondria	326
Manual of recommended practices for sanitary control	442	mitochondrial bodies	325
manure, use in rearing of larvae	374	Mitsugi, K., starfish stomach extract	438
Marceau, F.	59	mixing, in estuary	401
mantle muscles	83	Miyazaki, I., male spawning stimulated by <i>Ulva</i> and other algae	311
muscle fibers	154	Mobile Bay, salinity range	405
power of the adductor muscle	176	Möbius, K., definition of oyster bed	397
relaxation time in white part of adductor	164-165	oyster beds destroyed by human activity	398
Marchal, P., excretion	274	<i>Modiolus demisus</i> , provitamin D content	391
marenin	384	moisture content, of meat	385
Marsland's pressure bomb	142	moisture determination, xylene distillation	385
Martin, G. W., feeding experiments	232, 234	<i>Molgula manhattensis</i>	211, 427
fungi parasites of larvae	376	<i>Monas</i> , sp., a food for larvae	375
Martin, J., calcification	97	<i>Monilia</i> , suspected in shell disease	418
Martino, E. C., antimicrobial agents	393	<i>Monochrysis lutheri</i> , food of larvae	376
<i>Mastrigocoleus testarum</i>, boring alga	426	immobilized by style enzyme	231
Matagorda Bay, sedimentation	412	monomyarian	152
Matsubayashi, T., heart beat	251	Moore, H. F.	65
Matthews, S. A., nerve net in labial palps of <i>Anodonta</i>	114	apron technique	187
Mead, A. D., cell lineage	346	food of the oyster	232
Medcof, J. C.	35	oyster bottoms	398
Malpeque Bay disease	415	Texas oyster reefs	412
setting, larva	366	volumetric determination of food	232
<i>Megathura crenulata</i>, acrosomal reaction	341	Morgan, E., <i>Codium</i> in Long Island Sound	429
Meisenheimer, J., cell lineage	346	Moriches Bay, pollution by duck farms	444
metamorphosis	367	Morin, G., effect of potassium on heart	251
Mendel, L. B., zinc in tissues	390	heart physiology	242
<i>Menesitho</i> (See: <i>Odostomia</i>)	436	pacemaker system of heart	246
<i>Menidia</i>, host of <i>Bucephalus</i>	420	Morton, J. E., osmoregulation	278
menthol, use in narcosis	357	Motley, H. L., pacemaker system of heart	246
Menzel, R. W., glycogen	386	mouth	70, 219
<i>Mercenaria mercenaria</i>, catch mechanism	167	Moynier de Villepoix, R., periostracal groove	86
oxygen consumption by tissues	200	MPN, most probable number	442
respiration	205	mucopolysaccharides, in connective tissue	79
<i>Meretrix meretrix</i>	31	mucous cell, in labial palps	111
Merrill, A. L., chemical composition	381	mud, accumulation by <i>Polydora</i>	412
Merrill, A. S., <i>O. equestris</i>, salinity range	404	mud blisters	422
Merton, N., ciliary motion	137	in Virginia oysters	424
mesoderm	355	mud prawn	439
formation of	348	mud traps	414
mesohaline zone	404	mud worms	421-425
metabolism chamber	201-202	Murer, acetylcholine content of heart	252
metachronic wave	136	Murphy, D. B., vitamins	391
metachronism	136	muscle attachment, platform	34, 41
metals, heavy, detection in blood cells	264	muscle cells	83
metamorphosis	366	muscles, of gills	130-132
<i>Microciona prolifica</i>	428	in gill filaments	131
micromeres	345-346	chemical changes during contraction	167-168
quartet	347	rudimentary (in the mantle)	17, 70, 79
microplankton, seasonal changes in volume	408-409	muscle fibers, in adductor	153
microvilli, in ciliated cells	131	muscle fibers, striated	84-361
		striation	153-154
		structure	153

	Page		Page
translucent (dark)	154	distribution of larvae in relation to tides	369
transverse	83, 160	effect of light on shell movement	175
ultrastructure	157-158	effect of tide on shell movement	175
muscle scar	18, 41, 43, 152	labial palps of oyster spat	115
ratio of scar and shell areas	43	mantle currents	91
muscular activity, periodicity	180	promyal chamber	123
mussel, California, water propulsion and size	195	setting	366
<i>Mya arenaria</i> , absorption of glucose	231	spawning	308
ammonia in excreta	276	<i>Skeletonema</i> as food	232
ciliary tracts of stomach	220	stimulation of larvae by light	371
crystalline style	224	vertical distribution of larvae	402
enzymes	229	velum	77
heart physiology	242	<i>Nematopsis</i>	419
ligament elasticity	59	nephridia	271
oxygen debt	214	nephroprokt	272
oxygen utilization	214	<i>Nerets</i> , spawning	319
pH effect on cilia	246	nephrostome	271
myogenic heart	164	nerve cells, of ganglia	285
myosin	164	multipolar	285
solubility of	418	under ciliated epithelium	137
<i>Myotomus ostrearum</i> , suspected cause of foot disease	418	unipolar	285
<i>Myriophyllum spicatum</i> , (milfoil), invasion into Maryland and Virginia waters	430	nerve net, in mantle	86
<i>Mytilicola orientalis</i> , parasite in bivalves	420	nerve, accelerating heart beat	250-251
<i>Mytilus edulis</i> , absorption of glucose	231	branchial, microscopic structure	289
amino acids	391	cardiac	251
aragonite in shell	104	circumpallial	285
crystalline style	224	distribution	281
effect of drugs on ciliary motion	140	emerging from visceral ganglion	284
gills, effect of chemicals	139	inhibiting heart beat	251
heart beat	250	nervous system	71, 281, 289
heart physiology	242	anatomy	283
innervation of adductor	106	larval	360
invasion of oyster beds	428	method of study	281
labial palps	114	simplification of	281
mechanical properties of cilia	135	neurosecretion, effect on spawning	313
pacemaker system of heart	246	neurosecretory cells	293
sperm	341	Newcombe, C. L., relationship of height and area in bivalves	31
subligamental ridge	89	niacin, in oysters	391
N-ethyl-carbazole, carbohydrate reagent	197	Nicomedes, conchoid curve	26
N-ethyl-carbazole method, for determination of carbohydrates in sea water	198	Nigrelli, R. F., blood cells	260
naere, ultrastructure of	54-55	Nissl granules, in nerve cells	286
nannoplankton, as food	232	nitrogen, in excreta of bivalves	278
in rearing tanks	374	nitrogen secretion, methods	277
narcosis	65	<i>Nitzschia</i> , removal by gills	194
Navez, A. E., effect of pilocarpine on heart	253	Nomejko, C. A., effect of tides on shell movement	175
Needham, D. M., chemical changes during mus- cular contraction	167	Nomura, E., growth of <i>Meretrix meretrix</i>	31
Needler, A. B., hermaphroditism	314	Nomura, S., effect of acetylcholine on ciliary mo- tion	141
sex change	316	effect of adrenaline on cilia	140
Needler, A. W. H., Malpeque Bay disease	415	nonincubatory species	4
negative factors	409, 445-446	normal axis of shell	25
Nelson, E. M., vitamins	391	Novikoff, A. B., cytochrome oxidase in egg	344
Nelson, T. C.	71	novocaine, effect on cilia	140
apron technique	187	Nowinski, W. W., paramyosin	164
artificial feeding	235	periodicity in ciliary rootlets	133
crystalline style rotation	225	Nozawa, A., oxygen consumption in <i>O. circumpiota</i>	214
diantlin in sperm	312	Nueces River, Tex., sedimentation	412
		Numachi, Ken-Ichi, local races of <i>C. gigas</i>	266
		nymphae	49
		O'Brien, H., respiratory quotient	212

	Page		Page
<i>Ocenebra japonica</i>	434	crystalline style.....	224
effect of salinity.....	435	diagnosis.....	9
manner of drilling shell.....	435	electrocardiogram.....	244
menace to Pacific coast native oysters.....	435	fecundity.....	313
synonym of <i>Tritonalia</i>	434	gregariousness of larvae.....	373
Odhner, N., excretory system.....	271	hermaphroditism.....	314
Odlaug, T. O., toxicity of pulp mill effluent.....	444	laterofrontal cilia.....	128
<i>Odostomia</i> , synonym <i>Menestho</i> , ectoparasites of oyster.....	436	Linnaeus diagnosis.....	1
<i>Odostomia bisuturalis</i>	437	spawning.....	306
<i>Odostomia impressa</i>	437	sperm balls.....	302
oil, crude, toxicity to fishes.....	443	setting.....	371
emulsion, use in digestion experiments.....	228	sex change.....	314
oil, pollution.....	443	stomach histology.....	222
Oka, K., heart physiology.....	242, 251	striation of muscle fibers.....	157
Oka's method of heart stimulation.....	248	<i>Ostrea equestris</i>	4
Okada, K., primordial germ cells.....	299	diagnosis.....	12
Olsson, A. A., tensilia of ligament.....	49	hermaphroditism.....	314
opening of oysters.....	66	on buoys.....	2
opening of valves, duration of.....	172	salinity tolerance.....	5
organic components of adductor muscle.....	162	salinity range.....	404
organic substances in sea water, effect on water transport.....	197	<i>Ostrea frons</i> , diagnosis.....	12
organs of reproduction, anatomy.....	297, 299	<i>Ostrea haliotidea</i>	2
orthoquinone, in tanning of protein.....	58	<i>Ostrea imbricata</i> , analysis of adductor muscle.....	162
Orton, J. H.....	16, 32	<i>Ostrea laperousi</i> , heart beat.....	251
adductor muscle.....	154	diagnosis.....	11
anatomy of <i>O. edulis</i>	65	gametogenesis.....	325
ciliary currents.....	142	hermaphroditic gonad.....	326
crystalline style formation.....	225	number of larvae in female.....	313
feeding dependent on stage of tide.....	175	ostia.....	127
metabolism and sex change.....	212	spawning.....	306
sex changes.....	314	setting.....	372
sex change in <i>O. edulis</i>	314	<i>Ostrea lurida</i> , sex.....	314
Osburn, R. C., bryozoa in Chesapeake Bay.....	427	shell movements.....	175
osmoregulation.....	278	<i>Ostrea (Alectryonia) megodon</i>	4, 28
in <i>Crassostrea</i>	278	<i>Ostrea mexicana</i>	28
ostia.....	127	<i>Ostrea mordax</i>	16
effect on water transport.....	185, 197	<i>Ostrea permollis</i> , diagnosis.....	12
<i>Ostrea</i> , diagnosis.....	1, 6	<i>Ostrea sandwichensis</i>	28
effect of drugs on ciliary motion.....	140	<i>Ostrea tuberculata</i>	2
taxonomic characters.....	4	on corals.....	2
<i>Ostrea angasi</i> , prismatic layer in shell.....	4	ostreasterol, identical with 24-methylencholesterol.....	392
<i>Ostrea chilensis</i> , crystalline style.....	224	Ostreidae, taxonomy.....	1, 2
stomach histology.....	222	Otis, A. B., adrenaline effect on heart.....	253
<i>Ostrea circumpecta</i> , agglutination of sperm.....	340	effect of pH on heart beat.....	251
cardial nerves.....	251	ovary, definite.....	324
excised heart.....	243	oviparous oysters.....	5
ganglion cells of the heart.....	242	ovocyte (oocyte).....	303, 325
glycogen in adductor muscle.....	162	mature, size in <i>C. commercialis</i>	326
heart beat.....	250	suppression of development.....	324
respiration.....	214	ovogenesis.....	325
specific gravity of blood.....	265	ovogonia.....	325
<i>Ostrea cucullata</i> , hermaphroditism.....	314	ovulation.....	303-304
labial palps.....	111	Owen, G., normal axis of shell.....	25
pallial organ.....	289	oxalocetic decarboxylase, in calcification.....	99
spawning.....	306	oxidase.....	299
<i>Ostrea dendata</i> , heart beat.....	250	oxygen consumed and weight.....	208
<i>Ostrea edulis</i> , amino acids.....	391	oxygen debt.....	208, 214
chemical analysis of shell.....	39	oxygen tension, effect on respiration.....	214
ciliary tracts of gills.....	143	oxygen uptake.....	205
ciliary tracts in stomach.....	220	and shell movements.....	208
		and spawning.....	207
		effect of pH.....	211

	Page		Page
effect of salinity.....	211	heart beat.....	250
seasonal changes.....	211	heart physiology.....	242
under pull of adductor.....	209	inhibitory axons.....	166
variations.....	206-207	mantle muscles.....	84
oxygen utilization.....	214	Pedersen, E., respiration in <i>O. edulis</i>	213
coefficient.....	214	pediveliger.....	358
oysters, Blue Points.....	19	in <i>C. virginica</i>	362
Chincoteagues.....	19	Pekelharing, C. A., glycogen used by gonads.....	82
Cotuits.....	19	Pelseneer, P., chalky deposits.....	33
super-iodized.....	383	excretory system.....	272
trade names.....	19	nervous system.....	281
use in vitamin deficiency.....	391	penetrometer.....	399
oyster banks.....	397	Pepper, L., chemical composition of oysters.....	381
oyster beds.....	397	perforatorium.....	342
definition by Möbius.....	397	perfusion chamber, Wait's.....	247
oyster bottoms.....	397, 446	pericardial glands, concentration of ammonia	
Elbe estuary.....	398	carmine.....	274
general description of.....	398	pericardium.....	70, 239
destruction by human activity.....	398	pericardium wall.....	239-240
oyster community, abundance of species.....	398	periostracal gland, function.....	87
biomass.....	398	periostracal groove.....	77, 86
oyster crab.....	425	periostracum.....	4, 37
effect on oysters.....	425	Perkins, E. B., distribution of larva.....	369
oyster culture, success in New England.....	440	Peter, K., role of basal body of cilia.....	132
oyster reef.....	397	Petering, H. G., dropping mercury electrodes.....	214
Altamaha Sound.....	403	Petersen, C. G. J., role of <i>Zostera</i> in feeding.....	233
Oyster River, Mass., sedimentation.....	411	Petitfrère, J., heart.....	245
oyster thief.....	429	pH, effect on oxygen uptake.....	211
		in gut and stomach.....	230
pallial curtain.....	77	phagocytes, ingestion of particles.....	231
pallial line.....	75	role in excretion.....	279
pallial nerve.....	72	phagocytosis.....	264
pallial organ.....	72, 289	in gonad.....	302
function.....	291	pharyngeal teeth, of drum fish.....	439
histology.....	289, 290	Philpott, D. E., electron microscopy of muscle.....	157-158
of spat of <i>O. edulis</i>	292	separation of paramyosin.....	164
pallial strip (synonym of subligamental ridge).....	89	<i>Pholae</i> , labial palps.....	114
pallium.....	74	phosphagens.....	167
role in water transport.....	185	phosphatase alkaline in mantle.....	88
<i>Palolo</i> worm.....	319	in calcification.....	88
paolin.....	393	role in mobilization of calcium.....	97
palps, labial.....	67, 70	phosphatase activity, in bivalve muscles.....	168
<i>Paphia staminea</i> , enzymes.....	229	phosphates in shells.....	44
paramyosin.....	164	phosphorous, radioactive, P ³² , use in experiments	
discovery in clam.....	164	with gills.....	194
in adductor muscle.....	167	phosphorylization of ATP.....	168
localization of.....	164	phototaxis in larvae.....	371
separation from actomyosin.....	164	<i>Physa</i> , ciliary motion on lip.....	137
Parke, M. W., food of larva.....	374	phytoplankton, organic matter content.....	408
Parker, R. H., seasonal salinity variation in Texas.....	406	precipitation reaction.....	266
parks, for feeding of oysters.....	234	Picken, L. E. R., osmotic pressure of body fluid.....	274
<i>Patella</i> , calcification.....	94	rate of filtration with pericardium, method.....	275
pattern of growth.....	26	Piechowski, R. J., moisture determination by	
uPalhus, J. L. H., sedimentation.....	410	xylene distillation.....	385
pea crab, (See: oyster crab).....	425	Piéron, H., Nissl granules in nerve cells of <i>Mya</i>	286
pearl, formation.....	95	sensory stimulation in <i>Mya</i>	293
Pearse, A. S., oyster bottom.....	308	pigment cells, in connective tissue.....	83
<i>Stylochus</i>	438	pigment units, in plankton studies.....	409
Pease, D. C., effect of pressure on cilia.....	142	pigmentation.....	279
<i>Pecten</i> , antisera.....	142	Pilgrim, R. L. C., effect of acetylcholine on heart.....	252
cross striated muscles.....	154	sensitivity of bivalve heart to acetylcholine.....	252
effect of drugs on ciliary motion.....	140		

	Page		Page
pilocarpine, effect on cilia	140-141	pressure, inside the gills	146
effect on heart	253	pressure bomb, of Marsland	142
<i>Pinctada</i>	41	Price, T. J., radioactive waste	445
aragonite in shell	104	zinc absorption	390
closing of valves	165	Price, W. A., sedimentation	412
<i>Pinna</i>	41	principal axis, instability of	29
<i>Pinna nobilis</i> , contraction of muscle	159	prismatic layer	37, 93
<i>Pinnotheres ostreum</i>	425	Pritchard, D. W., definition of estuary	400
<i>Pisaster ochraceus</i>	438	mechanism of transport of larvae	402-403
plankton, seasonal changes in volume	408	setting	369
plankton trap, for larvae	369	types of estuaries	402
used in quantitative plankton sampling	409	prodissoconch	6, 355, 357, 364, 365
plaster of paris, injection with	66, 123	definite	6
Plateau, F., elasticity of ligament	59	<i>C. rhizophorae</i>	365
power of adductor muscle	176	<i>C. virginica</i>	365
<i>Platymonas tetrahele</i> , food of larvae	374	<i>O. edulis</i>	366
<i>Pogonias cromis</i> , destructive to oyster	439	<i>O. lurida</i>	366
Poisseul's formula	145	primitive	6
polar bodies	344	<i>Pycnodonte hyotis</i>	364
pollen, as food	232	productivity of oyster bottoms, evaluation of	445-446
pollution, definition of	441	method of scoring	445-446
evaluation of	445	productivity of sea bottom	398
Federal program of investigation	442	promyal chamber	4, 71, 75, 123
from duck farms	235, 444	cast of	124
lack of legal definition	441	importance of	123
oil	443	in <i>Crassostrea</i> oysters	124
pulp mill	443	relation to water turbidity	124
radioactive waste	445	relative size of	124
<i>Polydora</i> , sp., mud gathering worms	412	propionic acid, role in calcification	99
<i>Polydora</i> larvae	423	<i>Prorocentrum micans</i> , undigested by oyster	234
<i>Polydora ciliata</i>	422	Prosser, C. L., urine formation	275
<i>Polydora ligni</i>	413, 422	proteins	381, 382
amount of mud collected by	423	content	390
destruction of oysters in Delaware Bay	423	in adductor muscle	164
egg laying	422	in blood plasma	278
mud gathering mechanism	423	prototroch	355-356
<i>Polydora websteri</i>	422	provinculum	364
effect on oysters	424	provitamin D, in <i>Modiolus demissus</i>	391
invasion of oyster shell	412	Prussian blue reaction	225, 264, 388
life history	422	<i>Prymnesium parvum</i> , toxic to larvae	375
polyhaline zone	404	Pryor, M. G. M.	58
Pomerat, C. M.	372	Prytherch, H. F., larval development in <i>C. virginica</i>	355
Porter, K. R., electron micrograph of rootlets in		<i>Nematopsis ostrearum</i>	419
DeRobertis, et al.	133	rearing of larvae	374
Portier, P., vitamins in oysters	391	setting	366, 369
positive factors of environment	399	Przylecki, St. J., excretion of nitrogen in <i>Anodonta</i>	277
summation of	445	<i>Pseudolamellibranchia</i>	121
potassium, effect on frontal cilia of <i>Mytilus</i>	139-140	pseudopodia, bristle, of granulocytes	262
effect on heart beat	251	<i>Pseudostylochus ostreophagus</i>	439
Potts, F. A., adductor muscle	154	perforation of oyster shell	439
digestive diverticula	226	pulp mill effluent, depression of ciliary action	443-444
Power, E. A., yield of oysters	382	effect on opening of oyster valves	443
power of adductor muscle	175	Purdie, A., crystalline style	224
in air	177-179	Pütter, A., significance of dissolved organic matter	198
in sea water	178-179	Puységur, M., food of oyster	231
methods of measuring	176	<i>Pycnodonte</i> , definition of genus	7
predation, evaluation of	440	rectum, position of	4
predators	430	shell	4
Prenant, M., calcification in <i>Helix</i>	95	<i>Pycnodonte hyotis</i> , diagnosis	12
minerals of calcium carbonate	103	pyloric process	70
Prescott, B.	343	<i>Pyramimonas grossii</i> , as food of larvae	375
pressure, effect on ciliary motion	142		

	Page		Page
quartet (quartette) of micromeres	345	resilifer	49
Quayle, D. B., effect of low salinity	405	resilium	49
Quenstedt's muscle	17, 43, 70, 104	aragonite in	54
quinine sulphate, detected by tentacles	294	ultrastructure	53-54
		respiration	185, 200
races of <i>C. gigas</i>	266	in Woods Hole oysters	206
radial muscles, contraction of	83	methods	201-205
relation to nerve	83	in <i>O. edulis</i>	213
radioactive plankton, use in experiments with gills	194	in <i>O. edulis</i> and <i>C. angulata</i>	213
use in study of filtration by gills	194	related to shell movements	206
radioactive pollutants, in coastal waters	445	respiration chamber of Keys	201
radioactive waste	445	respiratory quotient, R. Q.	212
Rahl fixative	101	seasonal variation	213
Rai, H. S.	65	<i>Rhizosolenia</i>	409
injection of digestive system	219	riboflavin, in oysters	391
nervous system of <i>O. cucullata</i>	281	Rice, T. R., zinc absorption	390
pallial organ	289, 291	Rice, T. R., radioactive waste	445
Randoin, L., vitamins in shellfish	391	use of isotopes in removal of plankton cells by gills	194
Rakestraw, N. W., anthrone method of carbohydrate determination	198, 199	Richards, M. B., manganese determination	385
Ranson, G., absorption of food	231	Richardson, H. B., respiratory quotient	212
chalky deposits	32, 41	ridges, on labial palps	114
classification of larvae	6, 364	erection of	115
green oysters	384	"right-handed" oysters	29
retention of name of <i>Gryphaea</i>	3	Riley, G. A., organic matter in phytoplankton	408
water filtration by oysters	193	relationship of environmental factors	445
Rao, K. P., rate of water transport and size of California mussel	195	Ritchie, A. D., adductor of <i>Pecten</i>	164
Rappahannock River, Va., sedimentation	411	maintenance of tonus	166
Rassbach, R., periostracal groove	86	Robert A., cell lineage	346
rate of water transport by Black Sea mussels	191	Robertson, J. D., criticism of DeWaele's calcification theory	96
Raven, C. P., egg polarity	344	osmoregulation	278
mesoderm formation	348	urine formation	274
Rawitz, B., nerve cells	285	Roche, J., amino acids in conchiolin	41
nervous system	281, 283	amino acids in shell	41
pallial curtain, function of	77	Rochford, D. J., estuarine environment	401
pathways in ganglia	286	sorting of sediments	411
periostracal groove	86	rock crab	439
Ray, S., <i>Dermocystidium</i>	416	rootlets of cilia	133
Reade, J. B., stomach content of oysters	231	function of	133
rectum	226	periodic striation	133
red tide	409	ultrastructure of	132
Redfield, A. G., adverse effect of unbalanced fertilization	235	Rosenbluth, R., hypothesis of catch mechanism	167
pollution by duck farms	444	Roughley, T. C., anatomy of <i>O. commercialis</i>	65
Rees, C. B., bivalve larvae	357	<i>Polydora ciliata</i>	422
classification of larvae	364	sex change	316
Reichel, H., contraction of muscle in <i>Pinna</i>	159	Rubel, E., combined effect of factors	445
Reiner, E. R., setting	372	Runnström, J., acrosomal reaction	342
Reis, O. M., ligament	48	jelly coat of egg	341
Riesser, O., chemical composition of adductor muscle	161	Russell, P. B., collagen fibers	58
rejection reaction	169-170	Ryder, J. A., blue crab—oyster enemy	439
Remington, R. E., heavy metals	384	metamorphosis	366-367
renal duct	272	Sabatier, M. A., crystalline style	224
renal opening	272	Sacco, F., <i>C. virginica</i>	2, 3
reno-pericardial canals	239	<i>Saccoglossus kowalewskii</i> , acrosomal reaction	341
replacement of species, due to salinity changes	406	Saez, F. A., paramyosin	133, 164
reproduction	297	Saint-Hilaire, C., role of digestive diverticula	229
reproduction, See organs of	297	salinity and temperature changes, hydrographic climate	405
residual cells, in gonad	302		

	Page		Page
salinity, adaptation to	405-406	setting	365-368
effect of sudden change on oysters	405	abundance	369
effect on oxygen uptake	211	on under and upper surfaces	372
effect on oyster populations	406	settlement, of larvae	365
effect on specific gravity of blood	265	sewage, domestic	442
effect on water transport	406	effect on oyster bottom	442
inhibition of gonad development by low salinity	405	sex, alternation of	317
range of tolerance	404	sex change	314-317
salinity factor, evaluation	406	effect of excision of gills	316
salinity gradient, effect on distribution of larvae	369	frequency in adults	317-318
salinity range, Venice system	404	in <i>Crassostrea</i> oysters	316
Sandoz, M., oyster crab	425	sex classes at first breeding season	315
sarcoplasm	154	sex, recognition of	71
Sarlet, H., amino acids	391	recognition of by inducing spawning	316
Savage, R. E., food of <i>O. edulis</i>	232	sex ratio	314
Sa ville-Kent, W., <i>O. mordax</i>	16	at first breeding season	314-315
Sawano, E., butyrase in crystalline style	230	in sex reversed oysters	317
starfish stomach extract	438	sex cells, release of	303-304
<i>Saxidomus giganteus</i> , crystalline style, chemical composition	226	sexual phases	314
enzymes	229	Seydel, E., toxicity of crude oil	444
scallop, respiration	205	shape of shell, index	29
scallop (<i>Aequipecten</i>), water propulsion by gills	195	Shaw, B. L., gastric shield	223
Schaefer, M. B., setting at different angles	372	stomach histology	222
Scheer, B. T., general physiology textbook	167	Shaw, W. N., raft culture	428
Schiedt, R. C., pigmentation	279	Sheepscot River, Me., abrasion of oyster shells	403
<i>Schizoporella unicornis</i>	427	shell, analysis by Columbia Southern Corp.	43
<i>Schizothaerus nutalii</i> , crystalline style, chemical composition	226	area and height	30-31
Schlossberger, J., analysis of conchiolin	39	as buffer	212
Schmidt, W. J., calcite crystals in prism	37	<i>C. virginica</i>	16
prismatic layer of shell	93	chemical composition	43
structure of cilium	132	circular	27
Schmitt, F. C., nervelike apparatus of gills	137	contour of	23
rootlets of cilia	134	dimensional relationship	29
Schmitt, F. O., paramyosin in oyster	164	gland	355
Schwalbe, G., diamond lattice pattern in adductor muscle fibers	154	height	18
Schwaneke, H., blood supply of palps	113	larval	363
<i>Scytosiphon</i>	428	length	18
sea water, diluted, effect on mantle	294	morphology	4, 16, 363
quantity required by oyster community	403	<i>Mya arenaria</i> , strontium/calcium ratio	44-45
sedimentation	410	<i>O. edulis</i> , chemical analysis	39
destructive to oyster beds	412	<i>O. edulis</i> , chemical composition	44
effect on oysters	412	organic material of	39
sedimentation factor, evaluation of	415	organic matrix	92-93
sediments, biochemical changes	413	phosphates	44
sediments in suspension, determination of	414	pigmentation	20
sediments, sorting of	410-411	principal dimensions	20
suspended	410-411	rate of secretion	92
self-fertilization	315	right and left	16
Seligman, A. M., cytochemistry	344	shape of	21
Semichon, L., glycogen in vesicular cells	83	structure	36
sensory stimulation	293-294	terminology	36
apparatus for study	293	thickness	18
Seo, A., nervous control of ciliary motion	137	variability	18
serological differences in bivalves	266	width	18
serological studies, absorption tests	266	shell disease	417
serology	265-266	shell heap	440
		shell liquor	68
		shell movements	168
		after spawning	174
		alleged effect of carbohydrates	199
		during male spawning	310

	Page		Page
effect of continuous pull.....	179	stimulation by temperature.....	308-309
effect of light.....	175	specific gravity, of blood.....	265
effect of temperature.....	174	effect of reduced salinity.....	265
effect of tide.....	175	spectrographic analysis of meat.....	383
female spawning.....	172	sperm, discharge of.....	310-311
kymograph records.....	169	suspension used in artificial fertilization.....	342
major types.....	169-172	transport by currents.....	320
method of recording.....	168	sperm ball.....	327
of dying oyster.....	122-173	sperm extract, stimulation of spawning.....	312
of spawning female.....	309-310	spermary, definite.....	324
percentage of time closed.....	174	mature.....	327-328
role in water transport.....	185	ripe.....	302
Shelton Bay, Wash., pollution.....	444	spermatocyte.....	327-328
Shukow, E. K., muscle tonus.....	166	of <i>O. lurida</i>	327
Siebert, W., labial palps.....	113	secondary.....	327
silt, use in determining role of water transport.....	193	spermatogenesis.....	362
sinuses, blood.....	84	inhibition by ovocytes.....	315
<i>Sirolopidium zoophthorum</i> , destructive to larvae.....	376	successive stages.....	330
<i>Skeletonema</i>	429	spermatogonia, number of divisions.....	326
as food of oyster.....	232, 234	primary.....	325
Skramlik, E. V., contraction of auricles.....	244	spermatozoa, in follicles.....	302
"sliding" hypothesis of muscle contraction.....	167	<i>Sphaerium</i> , cessation of ciliary motion.....	146
Smeltz, H. A., food of oysters.....	232	heart beat.....	250
Smith, E. A., oysters adhering to <i>Trochus</i>	2	sphaerolithes.....	103
Smith, R. A., shell analysis.....	44	sphincter, of gonoduct.....	303
Smith, R. O., oyster culture in South Carolina.....	412	spiral, logarithmic.....	25
sodium potassium ratio in adductor muscle.....	162	spiral structure, of shell.....	21
soil extract, used in algal culture.....	375	spiremes.....	325, 327
solids, in meat.....	381	spirochaetes.....	426
local variation.....	382	<i>Spisula solidissima</i> , ligament of.....	60
seasonal variation.....	382	catch mechanism.....	167
somatoblast (X cell).....	348	Spitzer, J. M., excretory system.....	271, 274, 276, 277
second (M cell).....	348	<i>Spondylus</i> , cross striated muscles.....	154
sorting of food, by labial palps.....	114	sponges, on oyster grounds.....	428
sorting mechanism, of labial palps.....	118	Sporn, E., analysis of conchoid curve.....	23
South Carolina, muddy tidal flats.....	412	Springer, P. F., Milfoil invasion.....	430
Spärck, R., experiments with <i>Zostera detritus</i>	233	SSO (<i>Haplosporidium costale</i>).....	417
rearing of larvae.....	374	Stafford, J., eggs of <i>O. lurida</i>	305
respiration of <i>O. edulis</i> and <i>C. angulata</i>	213	larval development, <i>O. lurida</i>	355
setting.....	369	metamorphosis.....	367
sex changes in <i>O. edulis</i>	314	promyal chamber.....	123
<i>Zostera</i> as food.....	234	starfish.....	437
Sparks, A. K., <i>Mytilicola</i>	420	abundance of.....	437
Sparrow, F. K., <i>Dermocystidium</i>	416	destructiveness.....	437
marine fungi.....	376	larvae.....	437
spat.....	366	manner of attacking oysters.....	438
spatfall.....	365	movements.....	437
spawning.....	303-313	statocyst.....	360-361
artificially initiated in oyster population.....	319	Stauber, L. A., excretion of India ink.....	279
at low temperature.....	307	heart beat.....	247-249
biological significance.....	319-320	Stein, J. E., <i>Hexamita</i>	419
critical temperature vs. critical condition.....	309	Steinhardt, B., calcification theory.....	96
eggs discharged through the gills.....	306	<i>Stella grubi</i> , sponge associated with <i>O. permollis</i>	12
female reaction.....	303-304	Stempel, W., ligament.....	48
frequency.....	312	Stenzel, H. B., aragonite in resilium.....	54
hermaphroditic oyster.....	318	aragonite in shells.....	4
inhibition.....	312	generic names in family <i>Osteridae</i>	6
initiation by males.....	319	sterols, in oysters.....	391-392
lunar periodicity.....	318-319	sterroblastula.....	347
male reaction.....	310-312	Stevens, B. A., <i>Calianassidae</i>	439
of Onset oysters.....	308	stimulation, of nerve by inorganic salts.....	294
sex reversed oysters.....	318	velocity of transmission.....	293
shell movements.....	309	stimulation of tentacles, latent period.....	294

	Page		Page
sting ray	439	temperature coefficient	249
Stolkowski, J., role of carbonic anhydrase	104	of ciliary action	146
stomach	71, 219-221	temperature range	407
ciliary tracts	220	Ten Cate, J., heart physiology	242
histology	222	Tennent, D. H., <i>Bucephalus</i>	419
lining	220-221	tensillum	49-50
parts of	219-221	fibrillae	51, 53
Stommel, H., organic matter in phytoplankton	408	tentacles	66-67, 76
Stoke's law	410	nerves of	84-86
Stotts, V. D., milfoil	430	position	78
streamline flow	410	stimulation of	293
striation of muscle, oblique	154	structure of	85
<i>Striostrea</i>	6	Terao, A., agglutination of sperm	340
stroboscope, use in study of ciliary motion	137	<i>Teredo</i> , cellulase in tissues	230
Strohl, J., excretory system	271	cross striated muscles	154
excretion of dyes	279	digestive diverticula	226
strontium, effect on formation of aragonite	104	terminal groove, of gills	129
in shells	44	Tethys	1
strontium-calcite ratio in shells	44-45	Texas, increase in salinity over oyster beds	406
struggle for space	430	siltling of inshore waters	412
Studnitz, G. V., pallial organ	290	<i>Thais haemastoma</i> , distribution in relation to salinity	434
<i>Stylochus ellipticus</i>	438	fecundity	433
<i>Stylochus inimicus</i> , synonym <i>S. frontalis</i>	438	trapping of	433
<i>Stylochus frontalis</i>	438	<i>Thais lamellosa</i>	432, 434
subligamental ridge	79, 89	thiamine, in oysters	391
histology	89	Thiele, J., labial palps	113
sulphates, accumulation in <i>Mytilus</i>	278	pallial organ	289
Suzuki, S., ganglion cells in heart	242	taxonomy of <i>Ostrea</i>	4
heart innervation	241	Thompson, d'A. W., mathematical analysis of growth and form of shells	22, 27
swarming of larvae	306	Thorsen, G., dispersal of larvae	369
synapsis	327	food of larvae	374
syringe pipette of Van Dam	204	thyroidin, as stimulant of male spawning	311
systole	243	tide, effect on shell movement	175
Szent-Györgyi, A., theory of muscular contraction	164, 167	time marker, for slow motion kymograph	190
Szent-Györgyi, A. G., electron microscopy of muscle	157-158	Todd, A. R., orthoquinone in arthropod's cuticle	58
hypothesis of catch mechanism	166	Tomita, G., serological differences in bivalves	266
Tabulae Biologicae	164	tonic activity	166
Takatsuki, Shun-Ichi, blood cells granules	263	myogenic vs. neurogenic	166
effect of adrenaline on heart	253	tonotropic effect of potassium	251
enzymes in blood cells	264	tonus	166
excised heart, method	243	loss of in adductor muscle under continuous pull	178-179
heart beat	250	toxicity, determination in low concentration	444
heart physiology	242	of pollutants, reduced by oxidation	444
Tamura, T., power of adductor muscle	176	transport of water by the gills	185
Tanaka, K., chalky deposits in shell	35	automatic recording	187
Tarzwel, C. M., pollution studies	442	Trask, P. D., sedimentation	410
taxodont teeth	364	settling	411
Taylor, I. R., action currents in the heart	244	Trematodes	419
Taylor, W. R., algae	426	<i>Tridacna</i> , determination of pulling force	59
<i>Tellina tenuis</i> , ligament	56, 59	proteolytic action in stomach	231
teloblasts	348	trochoblasts	355
temperature, as environmental factor	407-408	trochophore	355
as factor controlling feeding	407	trochophore, anatomy	356
as factor controlling reproduction	407	trochophore stage, duration of	356
effect on ciliary motion	138-139	<i>Trochus maculatus</i>	2
effect on rate of work of cilia	145-146	Trueman, E. R., ligament	48, 49, 56, 58, 59
effect on spawning	308-309	role of strontium and magnesium in shell formation	104
mean monthly in Apalachicola Bay and Long Island Sound	407		
temperature characteristic (μ)	249		

	Page		Page
Tuckerman's formula, for determining concentration of pollutant in estuary.....	402	<i>Venus verrucosa</i> , ligament elasticity.....	59
Tullberg, T., growth of shell.....	48	veratrine, effect on cilia.....	140
subligamental ridge.....	89	effect on heart.....	253
turbidimeter.....	193	Vernon, H. M., respiratory quotients.....	212
turbidity determinations.....	193-194	Veselov, E. A., toxicity of crude oil.....	444
Turchini, J., excretion.....	274	vestibule.....	70
Turner, R. D., taxonomy of boring clams.....	421	vesicular cell.....	79
Twenhofel, W. H., sedimentation.....	410	Verwey, J., selection of bottom by larvae.....	399
Tyler, A., acrosomal reaction.....	341	Viallanes, H., use of silt in determining water transport.....	193
fertilizin.....	340	Vincent, D., acetylcholine content in heart.....	252
<i>Tylosurus marinus</i> , host of <i>Bucephalus</i>	420	Vinogradov, A. P., chemical composition of shell.....	44
typhlosole.....	224, 225, 226	vinyl acetate plastic, used for blood venous injection.....	253
tyrosin, in conchiolin.....	103	vinyl resin, used for injection.....	66
Uëxkull, J., catch mechanism of scallop.....	165	visceral ganglion, extirpation has no effect on ciliary motion.....	147
ultraviolet light, in study of ciliary current.....	115	visceral mass.....	71
<i>Ulua</i>	428	viscosity of water, effect on work of cilia.....	146
umbo.....	16	vitamin D.....	391
umbo larva.....	357	vitamins in oysters.....	391
<i>Unionidae</i> , excretion rate.....	274	vitelline membrane.....	343
<i>Upogebia</i>	439	Voisin, P., shell disease in European oyster.....	418
urea, in excreta of <i>Mya</i> and <i>Mytilus</i>	276	<i>Volzella</i> , aragonite in shell.....	104
urease, in <i>Mytilus</i> and <i>Helix</i>	277	Wada, S. K., acrosomal reaction.....	341
uric acid, absent in <i>Mytilus</i> , traces in <i>Mya</i>	277	Wait's perfusion chamber.....	248
in intestine.....	277	Waksman, S. A., decomposition of sediment.....	413
urine formation.....	274	Wallengreen, H., labial palps.....	113
urino-genital groove.....	70	ciliary currents.....	142, 146
urino-genital vestibule.....	303	Walne, P. R., rearing of larvae.....	375
<i>Urosalpinx cinerea</i>	430	Walzl, E. M., action current in heart.....	244
dimensions.....	430-431	Wangersky, P. J., dehydroascorbic acid in sea water.....	198
egg laying.....	432	Warburton, F. E., <i>Cliona's</i> manner of boring.....	420
fertility.....	432	waste, amount discharged into coastal waters.....	441
manner of drilling.....	431	importance of sublethal concentrations of.....	444
rheotaxis.....	431	industrial.....	443
selection of food.....	431	oxidation of.....	444
<i>Urosalpinx</i> extract, effect on mantle.....	294	radioactive.....	445
U.S. Public Health Service.....	441	waste products.....	276
Vaillant, L., <i>Tridacna</i> ligament.....	59	water content, in oyster meat, seasonal changes.....	386
valve, equation of.....	24	water demand, by oyster community.....	403
Van Dam, L., respiration studies.....	204	water filtration, by oysters.....	186-192
syringe pipette.....	204	rate, Jørgensen formula.....	194
utilization of oxygen.....	214	water movements on oyster beds.....	400-403
Vasseur, E., jelly coat of eggs.....	340	water movement factor, evaluation of.....	403
vaterite.....	103	Water Pollution Control Acts.....	441
veins.....	84, 254	water propulsion, rate of.....	193
afferent.....	254	water transport by gills, control of.....	194, 197
afferent, structure.....	257	water transport by four species of oysters, determined by turbidity method.....	193
efferent.....	257	direct methods of determination.....	186
velar retractors.....	359, 361	indirect method of determination.....	186, 193
veliconcha.....	358	reduction due to slowing of lateral cilia.....	197
veliger.....	356	regulation of.....	185
advanced stages.....	359	simultaneous recording of the rate of water transport and shell movement.....	187
anatomy.....	357	water transport and shell movement.....	196
velum.....	356, 357	water tubes.....	71, 76
disintegration in metamorphosis.....	367	water wheel, use in recording water transport.....	189
venous system.....	254	Watt, B. K., chemical composition of oysters.....	381
ventilation, of gills.....	185, 214		
ventricle of heart.....	240		
peristaltic wave.....	243		
rhythm of.....	251		

	Page		Page
Weber, H. H., chemical changes in muscular contraction.....	167	xerophthalmia.....	391
ATP (adenosinetriphosphate) function in muscular contraction.....	167-168	Yakima River, Oreg., transport of larvae.....	402
weight, of oysters.....	21	Yazaki, M., specific gravity of blood.....	265
weight of meat, seasonal variation in <i>O. edulis</i>	383	yeast, use in feeding experiments.....	234
Weiss, P. A., embryology textbook.....	347	yield of oysters.....	382
Wells, W. F., rearing of larvae.....	374	local variation.....	382
Wentworth, J., protein in oyster meat.....	391	yolk nucleus.....	325
Wenyon, C. M., structure of cilia.....	132	Yonge, C. M., absorption of glucose.....	231, 235
Werner, B., veliconcha, name for oyster larva.....	358	anatomy.....	65
Westley, C. E., condition index.....	393	boring clams.....	456
Weston, W. H., fungi, parasites on larvae.....	376	cast of digestive system.....	219
Wetzel, G., conchiolin in shells.....	39	ciliary currents.....	142
Whaley, H. H., vertical distribution of larvae.....	402	ciliary tracts of stomach.....	220
Wharton, G. W., oyster bottoms.....	398	crystalline style present in healthy oysters.....	225
<i>Stylochus</i>	438	digestion.....	229
Whipple, D. V., effect of pH on oyster cilia.....	140	digestive diverticula.....	226
oxygen consumption.....	201	enzymes of blood cells.....	264
oxygen tension effect on respiration.....	214	gastric shield formation.....	222
vitamins in <i>C. virginica</i>	391	gregariousness of larvae.....	373
Whitman, C. O., cell lineage.....	346	labial palps.....	115, 118
Wilbur, K. N., calcification.....	99, 103	lipase.....	230
shell formation.....	88	pH effect on cilia of <i>Mya</i>	140
Wilhelmi, R. N., precipitation reaction.....	266	pH in gut.....	230
willemite, use in study of ciliary currents.....	90, 115	secretion in style sac.....	225
Willier, B. H., embryology textbook.....	347	shell morphology.....	26
Willis, V. M., radioactive waste.....	445	spawning of <i>O. edulis</i>	305
Wilson, A. J., water transport by gills and carbohydrates.....	200	stomach.....	219
Wilson, E. B., cell lineage.....	346	veliger, <i>O. edulis</i>	356
Windsor, D. A., acetylcholine action on heart.....	252	York River, Va., sedimentation.....	411
Winton, F. R., tonus in muscle.....	166	quantitative plankton sampling.....	409
Wiweantec River, Mass., sedimentation.....	411	Zander reaction, for chitin.....	222
Woelke, C. E., <i>Pseudostylochus</i>	439	zebra mussel, neurosecretion.....	313
Wood, J. L., <i>Haplosporidium costale</i>	417	Zinc 65, accumulation in tissues.....	387, 390
Woods, F. H., ovogenesis.....	326	zinc, determination by Birchner's method.....	385
primordial germ cell.....	299	histological localization.....	390
work of lateral cilia.....	145	ZoBell, C. E., bacteria as food.....	233
Wright, E. R., shell analysis.....	44	zoospores of algae, as food.....	232
X cell (first somatoblast).....	348	<i>Zostera marina</i>	429
X-ray analysis of shells.....	103	role in feeding.....	233
		Zuman, P., dropping mercury electrodes.....	214