

Stanford



Mark Denny

John B. and Jean De Nault Professor of Marine Sciences and Director, Hopkins Marine Station
Biology

Bio

BIO

The field of biomechanics uses the principles of engineering and physics to understand how plants and animals function. I was raised as a biomechanic, beginning as an undergraduate at Duke University where I was recruited by two of the influential leaders of the field, Steve Wainwright and Steve Vogel. After my doctoral work at the University of British Columbia (where I explored the mechanics of gastropod locomotion with John Gosline), I began to wonder how biomechanics could be used in an ecological context, and I have been exploring this question ever since. Two years as a postdoc with Bob Paine at the University of Washington introduced me to the ecology of wave-swept shores, and it is in that uniquely stressful environment that my current research strives to advance our understanding of ecological mechanics.

ACADEMIC APPOINTMENTS

- Professor, Biology

LINKS

- My Lab Site: <http://web.stanford.edu/group/denny/cgi-bin/wordpress/>

Research & Scholarship

CURRENT RESEARCH AND SCHOLARLY INTERESTS

Biomechanics, ecology, and ecological physiology

Teaching

COURSES

2018-19

- Ecological Mechanics: BIOHOPK 150H, BIOHOPK 250H (Spr)
- Introduction to Research in Ecology and Ecological Physiology: BIOHOPK 47 (Spr)

2017-18

- Estimates and Errors: The Theory of Scientific Measurement: BIOHOPK 276H (Aut)
- Introduction to Research in Ecology and Ecological Physiology: BIOHOPK 47 (Spr)
- Oceanic Biology: BIOHOPK 163H, BIOHOPK 263H (Win)
- Physiology: BIOHOPK 84 (Spr)

2016-17

- Career Development for Graduate Students: BIOHOPK 315H (Aut)

- Oceanic Biology: BIOHOPK 163H, BIOHOPK 263H (Win)

2015-16

- Ecological Mechanics: BIOHOPK 150H, BIOHOPK 250H (Spr)
- Oceanic Biology: BIOHOPK 163H (Win)
- Physical Biology: BIOHOPK 320H (Aut)

STANFORD ADVISEES

Lucas Pavan

Doctoral Dissertation Reader (AC)

Will Gough, Shirel Kahane-Rapport, Ju Lee

Orals Chair

Valerie Troutman

Doctoral Dissertation Advisor (AC)

Ben Burford, David Cade, Rachel Crane, Nicole Moyon

Doctoral (Program)

Ben Burford, Rachel Crane, Nicole Moyon

GRADUATE AND FELLOWSHIP PROGRAM AFFILIATIONS

- Biology (School of Humanities and Sciences) (Phd Program)

Publications

PUBLICATIONS

- **The extraordinary joint material of an articulated coralline alga. II. Modeling the structural basis of its mechanical properties** *JOURNAL OF EXPERIMENTAL BIOLOGY*
Denny, M. W., King, F. A.
2016; 219 (12): 1843-1850
- **The extraordinary joint material of an articulated coralline alga. I. Mechanical characterization of a key adaptation** *JOURNAL OF EXPERIMENTAL BIOLOGY*
Denny, M. W., King, F. A.
2016; 219 (12): 1833-1842
- **Ecological Mechanics: Principles of Life's Physical Interactions**
Denny, M. W.
Princeton University Press.2016
- **Experimental determination of the hydrodynamic forces responsible for wave impact events** *JOURNAL OF EXPERIMENTAL MARINE BIOLOGY AND ECOLOGY*
Jensen, M. M., Denny, M. W.
2015; 469: 123-130
- **Thermal variation, thermal extremes and the physiological performance of individuals** *JOURNAL OF EXPERIMENTAL BIOLOGY*
Dowd, W. W., King, F. A., Denny, M. W.
2015; 218 (12): 1956-1967
- **Thermal variation, thermal extremes and the physiological performance of individuals.** *journal of experimental biology*
Dowd, W. W., King, F. A., Denny, M. W.
2015; 218: 1956-1967

- **Warm microhabitats drive both increased respiration and growth rates of intertidal consumers** *MARINE ECOLOGY PROGRESS SERIES*
Miller, L. P., Allen, B. J., King, F. A., Chilin, D. R., Reynoso, V. M., Denny, M. W.
2015; 522: 127-143
- **United We Fail: Group versus Individual Strength in the California Sea Mussel, *Mytilus californianus*** *BIOLOGICAL BULLETIN*
Cole, A., Denny, M.
2014; 227 (1): 61-67
- **United we fail: Group versus individual strength in the California sea mussel, *Mytilus californianus*.** *Biological bulletin*
Cole, A., Denny, M.
2014; 227 (1): 61-67
- **Aperture effects in squid jet propulsion** *JOURNAL OF EXPERIMENTAL BIOLOGY*
Staaf, D. J., Gilly, W. F., Denny, M. W.
2014; 217 (9): 1588-1600
- **Indefatigable: an erect coralline alga is highly resistant to fatigue.** *journal of experimental biology*
Denny, M., Mach, K., Tepler, S., Martone, P.
2013; 216: 3772-3780
- **Interaction of waves and currents with kelp forests (*Macrocystis pyrifera*): Insights from a dynamically scaled laboratory model** *LIMNOLOGY AND OCEANOGRAPHY*
Rosman, J. H., Denny, M. W., Zeller, R. B., Monismith, S. G., Koseff, J. R.
2013; 58 (3): 790-802
- **Natural intrusions of hypoxic, low pH water into nearshore marine environments on the California coast** *CONTINENTAL SHELF RESEARCH*
Booth, J. A., McPhee-Shaw, E. E., Chua, P., Kingsley, E., Denny, M., Phillips, R., Bograd, S. J., Zeidberg, L. D., Gilly, W. F.
2012; 45: 108-115
- **Biophysics, environmental stochasticity, and the evolution of thermal safety margins in intertidal limpets** *JOURNAL OF EXPERIMENTAL BIOLOGY*
Denny, M. W., DOWD, W. W.
2012; 215 (6): 934-947
- **The fine art of surfacing: Its efficacy in broadcast spawning** *JOURNAL OF THEORETICAL BIOLOGY*
Molacek, J., Denny, M., Bush, J. W.
2012; 294: 40-47
- **Scaling Up in Ecology: Mechanistic Approaches** *ANNUAL REVIEW OF ECOLOGY, EVOLUTION, AND SYSTEMATICS, VOL 43*
Denny, M., Benedetti-Cecchi, L.
2012; 43: 1-22
- **Anchor Ice and Benthic Disturbance in Shallow Antarctic Waters: Interspecific Variation in Initiation and Propagation of Ice Crystals** *BIOLOGICAL BULLETIN*
Denny, M., Dorgan, K. M., Evangelista, D., Hettinger, A., Leichter, J., Ruder, W. C., Tuval, I.
2011; 221 (2): 155-163
- **Grand Opportunities: Strategies for Addressing Grand Challenges in Organismal Animal Biology** *INTEGRATIVE AND COMPARATIVE BIOLOGY*
Stillman, J. H., Denny, M., Padilla, D. K., Wake, M. H., Patek, S., Tsukimura, B.
2011; 51 (1): 7-13
- **Importance of Behavior and Morphological Traits for Controlling Body Temperature in Littorinid Snails** *BIOLOGICAL BULLETIN*
Miller, L. P., Denny, M. W.
2011; 220 (3): 209-223
- **Failure by fatigue in the field: a model of fatigue breakage for the macroalga *Mazzaella*, with validation** *JOURNAL OF EXPERIMENTAL BIOLOGY*
Mach, K. J., Tepler, S. K., Staaf, A. V., Bohnhoff, J. C., Denny, M. W.
2011; 214 (9): 1571-1585
- **An inexpensive instrument for measuring wave exposure and water velocity** *LIMNOLOGY AND OCEANOGRAPHY-METHODS*
Figurski, J. D., Malone, D., Lacy, J. R., Denny, M.

2011; 9: 204-214

- **Spreading the risk: Small-scale body temperature variation among intertidal organisms and its implications for species persistence** *JOURNAL OF EXPERIMENTAL MARINE BIOLOGY AND ECOLOGY*
Denny, M. W., Dowd, W. W., Bilir, L., Mach, K. J.
2011; 400 (1-2): 175-190
- **Preference Versus Performance: Body Temperature of the Intertidal Snail *Chlorostoma funebris*** *BIOLOGICAL BULLETIN*
Tepler, S., Mach, K., Denny, M.
2011; 220 (2): 107-117
- **Diatom sinking speeds: Improved predictions and insight from a modified Stokes' law** *LIMNOLOGY AND OCEANOGRAPHY*
Miklasz, K. A., Denny, M. W.
2010; 55 (6): 2513-2525
- **Currents and turbulence within a kelp forest (*Macrocystis pyrifera*): Insights from a dynamically scaled laboratory model** *LIMNOLOGY AND OCEANOGRAPHY*
Rosman, J. H., Monismith, S. G., Denny, M. W., Koseff, J. R.
2010; 55 (3): 1145-1158
- **Organismal climatology: analyzing environmental variability at scales relevant to physiological stress** *JOURNAL OF EXPERIMENTAL BIOLOGY*
Helmuth, B., Broitman, B. R., Yamane, L., Gilman, S. E., Mach, K., Mislán, K. A., Denny, M. W.
2010; 213 (6): 995-1003
- **Marine Ecomechanics** *ANNUAL REVIEW OF MARINE SCIENCE*
Denny, M. W., Gaylord, B.
2010; 2: 89-114
- **Confronting the physiological bottleneck: A challenge from ecomechanics** *INTEGRATIVE AND COMPARATIVE BIOLOGY*
Denny, M., Helmuth, B.
2009; 49 (3): 197-201
- **On the prediction of extreme ecological events** *ECOLOGICAL MONOGRAPHS*
Denny, M. W., Hunt, L. J., Miller, L. P., Harley, C. D.
2009; 79 (3): 397-421
- **The role of temperature and desiccation stress in limiting the local-scale distribution of the owl limpet, *Lottia gigantea*** *FUNCTIONAL ECOLOGY*
Miller, L. P., Harley, C. D., Denny, M. W.
2009; 23 (4): 756-767
- **Thermal stress and morphological adaptations in limpets** *FUNCTIONAL ECOLOGY*
Harley, C. D., Denny, M. W., Mach, K. J., Miller, L. P.
2009; 23 (2): 292-301
- **Discovery of Lignin in Seaweed Reveals Convergent Evolution of Cell-Wall Architecture** *CURRENT BIOLOGY*
Martone, P. T., Estevez, J. M., Lu, F., Ruel, K., Denny, M. W., Somerville, C., Ralph, J.
2009; 19 (2): 169-175
- **Limits to running speed in dogs, horses and humans** *JOURNAL OF EXPERIMENTAL BIOLOGY*
Denny, M. W.
2008; 211 (24): 3836-3849
- **Flow Forces on Seaweeds: Field Evidence for Roles of Wave Impingement and Organism Inertia** *BIOLOGICAL BULLETIN*
Gaylord, B., Denny, M. W., Koehl, M. A.
2008; 215 (3): 295-308
- **To bend a coralline: effect of joint morphology on flexibility and stress amplification in an articulated calcified seaweed** *JOURNAL OF EXPERIMENTAL BIOLOGY*
Martone, P. T., Denny, M. W.
2008; 211 (21): 3421-3432

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- **To break a coralline: mechanical constraints on the size and survival of a wave-swept seaweed** *JOURNAL OF EXPERIMENTAL BIOLOGY*
Martone, P. T., Denny, M. W.
2008; 211 (21): 3433-3441
 - **Desiccation protection and disruption: A trade-off for an intertidal marine alga** *JOURNAL OF PHYCOLOGY*
Hunt, L. J., Denny, M. W.
2008; 44 (5): 1164-1170
 - **DESICCATION PROTECTION AND DISRUPTION: A TRADE-OFF FOR AN INTERTIDAL MARINE ALGA(1).** *Journal of phycology*
Hunt, L. J., Denny, M. W.
2008; 44 (5): 1164-1170
 - **Biophysics - The intrigue of the interface** *SCIENCE*
Denny, M. W.
2008; 320 (5878): 886-886
 - **Hydrodynamic forces and surface topography: Centimeter-scale spatial variation in wave forces** *LIMNOLOGY AND OCEANOGRAPHY*
O'Donnell, M. J., Denny, M. W.
2008; 53 (2): 579-588
 - **Techniques for predicting the lifetimes of wave-swept macroalgae: a primer on fracture mechanics and crack growth** *JOURNAL OF EXPERIMENTAL BIOLOGY*
Mach, K. J., Nelson, D. V., Denny, M. W.
2007; 210 (13): 2213-2230
 - **Death by small forces: a fracture and fatigue analysis of wave-swept macroalgae** *JOURNAL OF EXPERIMENTAL BIOLOGY*
Mach, K. J., Hale, B. B., Denny, M. W., Nelson, D. V.
2007; 210 (13): 2231-2243
 - **Ocean waves, nearshore ecology, and natural selection** *AQUATIC ECOLOGY*
Denny, M. W.
2006; 40 (4): 439-461
 - **Jet propulsion in the cold: mechanics of swimming in the Antarctic scallop *Adamussium colbecki*** *JOURNAL OF EXPERIMENTAL BIOLOGY*
Denny, M., Miller, L.
2006; 209 (22): 4503-4514
 - **Hot limpets: predicting body temperature in a conductance-mediated thermal system** *JOURNAL OF EXPERIMENTAL BIOLOGY*
Denny, M. W., Harley, C. D.
2006; 209 (13): 2409-2419
 - **Thermal stress on intertidal limpets: long-term hindcasts and lethal limits** *JOURNAL OF EXPERIMENTAL BIOLOGY*
Denny, M. W., Miller, L. P., Harley, C. D.
2006; 209 (13): 2420-2431
 - **Red algae respond to waves: Morphological and mechanical variation in *Mastocarpus papillatus* along a gradient of force** *BIOLOGICAL BULLETIN*
Kitzes, J. A., Denny, M. W.
2005; 208 (2): 114-119
 - **Quantifying scale in ecology: Lessons from a wave-swept shore** *ECOLOGICAL MONOGRAPHS*
Denny, M. W., Helmuth, B., Leonard, G. H., Harley, C. D., Hunt, L. J., Nelson, E. K.
2004; 74 (3): 513-532
 - **Limits to phenotypic plasticity: Flow effects on barnacle feeding appendages** *BIOLOGICAL BULLETIN*
Li, N. K., Denny, M. W.
2004; 206 (3): 121-124
 - **Paradox lost: answers and questions about walking on water** *JOURNAL OF EXPERIMENTAL BIOLOGY*
Denny, M. W.
2004; 207 (10): 1601-1606

- **Cyberkelp: an integrative approach to the modelling of flexible organisms** *PHILOSOPHICAL TRANSACTIONS OF THE ROYAL SOCIETY B-BIOLOGICAL SCIENCES*
Denny, M. W., Hale, B. B.
2003; 358 (1437): 1535-1542
- **Predicting wave exposure in the rocky intertidal zone: Do bigger waves always lead to larger forces-9** *LIMNOLOGY AND OCEANOGRAPHY*
Helmuth, B., Denny, M. W.
2003; 48 (3): 1338-1345
- **Modulation of wave forces on kelp canopies by alongshore currents** *LIMNOLOGY AND OCEANOGRAPHY*
Gaylord, B., Denny, M. W., Koehl, M. A.
2003; 48 (2): 860-871
- **Extreme water velocities: Topographical amplification of wave-induced flow in the surf zone of rocky shores** *LIMNOLOGY AND OCEANOGRAPHY*
Denny, M. W., Miller, L. P., Stokes, M. D., Hunt, L. J., Helmuth, B. S.
2003; 48 (1): 1-8
- **Revised estimates of the effects of turbulence on fertilization in the purple sea urchin, *Strongylocentrotus purpuratus*** *BIOLOGICAL BULLETIN*
Denny, M. W., Nelson, E. K., Mead, K. S.
2002; 203 (3): 275-277
- **Blade motion and nutrient flux to the Kelp, *Eisenia arborea*** *BIOLOGICAL BULLETIN*
Denny, M., Roberson, L.
2002; 203 (1): 1-13
- **The mechanics of wave-swept algae** *JOURNAL OF EXPERIMENTAL BIOLOGY*
Denny, M., Gaylord, B.
2002; 205 (10): 1355-1362
- **The rewards of chance** *NATURAL HISTORY*
Denny, M.
2001; 110 (4): 72-76
- **Consequences of transient fluid forces for compliant benthic organisms** *JOURNAL OF EXPERIMENTAL BIOLOGY*
Gaylord, B., Hale, B. B., Denny, M. W.
2001; 204 (7): 1347-1360
- **Hydrodynamics, shell shape, behavior and survivorship in the owl limpet *Lottia gigantea*** *JOURNAL OF EXPERIMENTAL BIOLOGY*
Denny, M. W., Blanchette, C. A.
2000; 203 (17): 2623-2639
- **Limits to optimization: Fluid dynamics, adhesive strength and the evolution of shape in limpet shells** *JOURNAL OF EXPERIMENTAL BIOLOGY*
Denny, M. W.
2000; 203 (17): 2603-2622
- **Are there mechanical limits to size in wave-swept organisms?** *JOURNAL OF EXPERIMENTAL BIOLOGY*
Denny, M.
1999; 202 (23): 3463-3467
- **The menace of momentum: Dynamic forces on flexible organisms** *LIMNOLOGY AND OCEANOGRAPHY*
Denny, M., Gaylord, B., Helmuth, B., Daniel, T.
1998; 43 (5): 955-968
- **Celestial mechanics, sea-level changes, and intertidal ecology** *BIOLOGICAL BULLETIN*
Denny, M. W., Paine, R. T.
1998; 194 (2): 108-115
- **Flow and flexibility - II. The roles of size and shape in determining wave forces on the bull kelp *Nereocystis luetkeana*** *JOURNAL OF EXPERIMENTAL BIOLOGY*
Denny, M. W., Gaylord, B. P., Cowen, E. A.

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- 1997; 200 (24): 3165-3183
- **Flow and flexibility - I. Effects of size, shape and stiffness in determining wave forces on the stipitate kelps *Eisenia arborea* and *Pterygophora californica*** *JOURNAL OF EXPERIMENTAL BIOLOGY*
Gaylord, B., Denny, M. W.
1997; 200 (24): 3141-3164
 - **A biomechanical hypothesis explaining upstream movements by the freshwater snail *Elimia*** *FUNCTIONAL ECOLOGY*
Huryn, A. D., Denny, M. W.
1997; 11 (4): 472-483
 - **A conjecture on the relationship of bacterial shape to motility in rod-shaped bacteria** *FEMS MICROBIOLOGY LETTERS*
Cooper, S., Denny, M. W.
1997; 148 (2): 227-231
 - **Settlement of marine organisms in flow** *ANNUAL REVIEW OF ECOLOGY AND SYSTEMATICS*
Abelson, A., Denny, M.
1997; 28: 317-339
 - **Wave-induced forces on the giant kelp *Macrocystis pyrifera* (Agardh): Field test of a computational model** *JOURNAL OF EXPERIMENTAL BIOLOGY*
Utter, B. D., Denny, M. W.
1996; 199 (12): 2645-2654
 - **Pulsed delivery of subthermocline water to Conch Reef (Florida Keys) by internal tidal bores** *LIMNOLOGY AND OCEANOGRAPHY*
Leichter, J. J., Wing, S. R., Miller, S. L., Denny, M. W.
1996; 41 (7): 1490-1501
 - **Why the urchin lost its spines: Hydrodynamic forces and survivorship in three echinoids** *JOURNAL OF EXPERIMENTAL BIOLOGY*
Denny, M., Gaylord, B.
1996; 199 (3): 717-729
 - **PREDICTING PHYSICAL DISTURBANCE - MECHANISTIC APPROACHES TO THE STUDY OF SURVIVORSHIP ON WAVE-SWEPT SHORES** *ECOLOGICAL MONOGRAPHS*
Denny, M.
1995; 65 (4): 371-418
 - **SURVIVING HYDRODYNAMIC-FORCES IN A WAVE-SWEPT ENVIRONMENT - CONSEQUENCES OF MORPHOLOGY IN THE FEATHER BOA KELP, *EGREGIA-MENZIESII* (TURNER)** *JOURNAL OF EXPERIMENTAL MARINE BIOLOGY AND ECOLOGY*
FRIEDLAND, M. T., Denny, M. W.
1995; 190 (1): 109-133
 - **SURVIVAL IN THE SURF ZONE** *AMERICAN SCIENTIST*
Denny, M.
1995; 83 (2): 166-173
 - **THE EFFECTS OF HYDRODYNAMIC SHEAR-STRESS ON FERTILIZATION AND EARLY DEVELOPMENT OF THE PURPLE SEA-URCHIN *STRONGYLOCENTROTUS-PURPURATUS*** *BIOLOGICAL BULLETIN*
Mead, K. S., Denny, M. W.
1995; 188 (1): 46-56
 - **EXTREME DRAG FORCES AND THE SURVIVAL OF WIND-SWEPT AND WATER-SWEPT ORGANISMS** *JOURNAL OF EXPERIMENTAL BIOLOGY*
Denny, M. W.
1994; 194: 97-115
 - **QUANTIFYING WAVE EXPOSURE - A SIMPLE DEVICE FOR RECORDING MAXIMUM VELOCITY AND RESULTS OF ITS USE AT SEVERAL FIELD SITES** *JOURNAL OF EXPERIMENTAL MARINE BIOLOGY AND ECOLOGY*
Bell, E. C., Denny, M. W.
1994; 181 (1): 9-29
 - **MECHANICAL CONSEQUENCES OF SIZE IN WAVE-SWEPT ALGAE** *ECOLOGICAL MONOGRAPHS*
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- Gaylord, B., Blanchette, C. A., Denny, M. W.
1994; 64 (3): 287-313
- **ELASTOMERIC NETWORK MODELS FOR THE FRAME AND VISCID SILKS FROM THE ORB WEB OF THE SPIDER ARANEUS-DIADEMATUS** *Workshop on Silk Polymers: Biology, Structure, Properties, Genetics*
Gosline, J. M., POLLAK, C. C., Guerette, P. A., Cheng, A., Demont, M. E., Denny, M. W.
AMER CHEMICAL SOC.1994: 328-341
 - **THE LARGEST, SMALLEST, HIGHEST, LOWEST, LONGEST, AND SHORTEST - EXTREMES IN ECOLOGY** *ECOLOGY*
Gaines, S. D., Denny, M. W.
1993; 74 (6): 1677-1692
 - **A DYNAMIC-MODEL FOR WAVE-INDUCED LIGHT FLUCTUATIONS IN A KELP FOREST** *LIMNOLOGY AND OCEANOGRAPHY*
Wing, S. R., Leichter, J. J., Denny, M. W.
1993; 38 (2): 396-407
 - **BIOLOGICAL CONSEQUENCES OF TOPOGRAPHY ON WAVE-SWEPT ROCKY SHORES .1. ENHANCEMENT OF EXTERNAL FERTILIZATION** *BIOLOGICAL BULLETIN*
Denny, M., Dairiki, J., Distefano, S.
1992; 183 (2): 220-232
 - **INTERTIDAL TREES - CONSEQUENCES OF AGGREGATION ON THE MECHANICAL AND PHOTOSYNTHETIC PROPERTIES OF SEA-PALMS POSTELSIA-PALMAEFORMIS RUPRECHT** *JOURNAL OF EXPERIMENTAL MARINE BIOLOGY AND ECOLOGY*
Holbrook, N. M., Denny, M. W., Koehl, M. A.
1991; 146 (1): 39-67
 - **BIOLOGY, NATURAL-SELECTION AND THE PREDICTION OF MAXIMAL WAVE-INDUCED FORCES** *SOUTH AFRICAN JOURNAL OF MARINE SCIENCE-SUID-AFRIKAANSE TYDSKRIF VIR SEEWETENSKAP*
Denny, M. W.
1991; 10: 353-363
 - **TERRESTRIAL VERSUS AQUATIC BIOLOGY - THE MEDIUM AND ITS MESSAGE** *AMERICAN ZOOLOGIST*
Denny, M. W.
1990; 30 (1): 111-121
 - **ON THE PREDICTION OF MAXIMAL INTERTIDAL WAVE-FORCES** *LIMNOLOGY AND OCEANOGRAPHY*
Denny, M. W., Gaines, S. D.
1990; 35 (1): 1-15
 - **CONSEQUENCES OF SURF-ZONE TURBULENCE FOR SETTLEMENT AND EXTERNAL FERTILIZATION** *AMERICAN NATURALIST*
Denny, M. W., SHIBATA, M. F.
1989; 134 (6): 859-889
 - **A LIMPET SHELL SHAPE THAT REDUCES DRAG - LABORATORY DEMONSTRATION OF A HYDRODYNAMIC MECHANISM AND AN EXPLORATION OF ITS EFFECTIVENESS IN NATURE** *CANADIAN JOURNAL OF ZOOLOGY-REVUE CANADIENNE DE ZOOLOGIE*
Denny, M.
1989; 67 (9): 2098-2106
 - **TENACITY-MEDIATED SELECTIVE PREDATION BY OYSTERCATCHERS ON INTERTIDAL LIMPETS AND ITS ROLE IN MAINTAINING HABITAT PARTITIONING BY COLLISELLA-SCABRA AND LOTTIA-DIGITALIS** *MARINE ECOLOGY PROGRESS SERIES*
Hahn, T., Denny, M.
1989; 53 (1): 1-10
 - **INVERTEBRATE MUCOUS SECRETIONS - FUNCTIONAL ALTERNATIVES TO VERTEBRATE PARADIGMS** *SYMP ON MUCUS AND RELATED TOPICS*
Denny, M. W.
COMPANY BIOLOGISTS LTD.1989: 337-366
 - **FRACTURE-MECHANICS AND THE SURVIVAL OF WAVE-SWEPT MACROALGAE** *JOURNAL OF EXPERIMENTAL MARINE BIOLOGY AND ECOLOGY*
Denny, M., Brown, V., Carrington, E., Kraemer, G., Miller, A.

- 1989; 127 (3): 211-228
- **LIFT AS A MECHANISM OF PATCH INITIATION IN MUSSEL BEDS** *JOURNAL OF EXPERIMENTAL MARINE BIOLOGY AND ECOLOGY*
Denny, M. W.
1987; 113 (3): 231-245
 - **LIFE IN THE MAELSTROM - THE BIOMECHANICS OF WAVE-SWEPT ROCKY SHORES** *TRENDS IN ECOLOGY & EVOLUTION*
Denny, M. W.
1987; 2 (3): 61-66
 - **THE STRUCTURE AND PROPERTIES OF SPIDER SILK** *ENDEAVOUR*
Gosline, J. M., Demont, M. E., Denny, M. W.
1986; 10 (1): 37-43
 - **WAVE-FORCES ON INTERTIDAL ORGANISMS - A CASE-STUDY** *LIMNOLOGY AND OCEANOGRAPHY*
Denny, M. W.
1985; 30 (6): 1171-1187
 - **MECHANICAL LIMITS TO SIZE IN WAVE-SWEPT ORGANISMS** *ECOLOGICAL MONOGRAPHS*
Denny, M. W., Daniel, T. L., Koehl, M. A.
1985; 55 (1): 69-102
 - **MECHANICAL-PROPERTIES OF PEDAL MUCUS AND THEIR CONSEQUENCES FOR GASTROPOD STRUCTURE AND PERFORMANCE** *AMERICAN ZOOLOGIST*
Denny, M. W.
1984; 24 (1): 23-36
 - **SPIDER SILK AS RUBBER** *NATURE*
Gosline, J. M., Denny, M. W., Demont, M. E.
1984; 309 (5968): 551-552
 - **THE PHYSICAL-PROPERTIES OF THE PEDAL MUCUS OF THE TERRESTRIAL SLUG, ARIOLIMAX-COLUMBIANUS** *JOURNAL OF EXPERIMENTAL BIOLOGY*
Denny, M. W., Gosline, J. M.
1980; 88 (OCT): 375-393