

# **Kenneth L. Smith, Jr.**

## **EDUCATION**

B.A., Zoology, Southern Illinois University  
Ph.D., Zoology/Ecology, University of Georgia

## **PROFESSIONAL EXPERIENCE**

2006 to present – Senior Scientist, Monterey Bay Aquarium Research Institute  
2008 to 2014 – Adjunct Professor, Department of Ocean Sciences, UC Santa Cruz  
2006 to present – Research Biologist Emeritus, Scripps Institution of Oceanography  
1984 to 2006 - Research Biologist, Scripps Institution of Oceanography  
1979 to 1984 - Associate Research Biologist, Scripps Institution of Oceanography  
1976 to 1979 - Assistant Research Biologist, Scripps Institution of Oceanography  
1971 to 1975 - Assistant Scientist, Woods Hole Oceanographic Institution

## **AWARDS**

NSF- Special Creativity Award (1988-1989)  
American Association for the Advancement of Science, Fellow (elected 1990)

## **CHAIR OF PH.D. THESIS RESEARCH (1992 - present)**

Ronald S. Kaufmann (Ph.D. - 1992) – University of San Diego  
Stacey E. Beaulieu (Ph.D. - 1998) - Woods Hole Oceanographic Institution  
Lynn M.L. Lauerma (Ph.D. - 1998) – University of San Diego  
Jeffrey C. Drazen (Ph.D. - 2000) – University of Hawaii  
Henry A. Ruhl (Ph. D. - 2006) - National Oceanography Center, Southampton; MBARI  
Michael Vardaro (Ph. D. - 2008) – Oregon State University

## **POSTGRADUATE RESEARCHERS (1992 - present)**

Ronald S. Kaufmann (1992 - 1997) Scripps Institution of Oceanography  
Anders Tengberg (2000 - 2001) University of Goteborg, Sweden  
David Bailey (2004 - 2006) - EU/ M. Curie Fellowship, Univ. Aberdeen  
Henry Ruhl (2006 - 2008) - Monterey Bay Aquarium Research Institute  
Michael Vardaro (2008 - 2010) - Monterey Bay Aquarium Research Institute  
Stephanie Wilson (2008 - 2010) - Monterey Bay Aquarium Research Institute  
Katherine Dunlop (2013- 2015) – Monterey Bay Aquarium Research Institute

## **PUBLICATIONS**

- 2019 Durden, J.M., B.J. Bett, C.L. Huffard, H.A. Ruhl and K.L. Smith, Jr. Abyssal deposit-feeding rates consistent with the metabolic theory of ecology. *Ecology* 100 (1):e02564.10.1002/ecy2564.
- 2018 Smith, K.L., Jr., H.A. Ruhl, C.L. Huffard, M. Messie and M. Kahru. Episodic organic carbon fluxes from surface ocean to abyssal depths during long-term monitoring in NE Pacific. *Proc. Nat. Acad. Sci.* 115 (48): 12235-12240.
- 2018 Dunlop, K.M., T. Jarvis, K.J. Benoit-Bird, C.M. Waluk, D.W. Caress, H. Thomas and K.L. Smith, Jr. Detection and characterization of deep-sea benthopelagic animals from an autonomous underwater vehicle with a multibeam echosounder: A proof of concept and description of data-processing methods. *Deep-Sea Res. Part I.* 134:64-79
- 2017 Smith, K.L., Jr., A.D. Sherman, P.R. McGill, R.G. Henthorn, J. Ferreira and C.L. Huffard. Evolution of monitoring an abyssal time-series station in the N.E. Pacific over 28 years. *Oceanography* 30 (4): 72-81.
- 2016 Smith, K.L., Jr., C.L. Huffard, A.D. Sherman and H.A. Ruhl. Decadal change in sediment community oxygen consumption in the abyssal Northeast Pacific. *Aquat. Geochem.* doi: 10.1007/s10498-016-9293-3.
- 2016 Dunlop, K.M., D. van Oevelen, H.A. Ruhl, C.L. Huffard, L.A. Kuhnz and K.L. Smith, Jr. Carbon cycling in the deep eastern North Pacific benthic food web: investigating the effect of organic carbon input. *Limnol. Oceanogr.* 61:1956-1968.
- 2016 Huffard, C.L., L.A. Kuhnz, L. Lemon, A.D. Sherman and K.L. Smith, Jr. Demographic indicators of change in a deposit-feeding abyssal holothurian community (Station M, 4000 m). *Deep-Sea Res. I* 109:27-39.
- 2016 Laguionie-Marchais, C., G. Paterson, B.J. Bett, K.L. Smith, Jr, and H.A. Ruhl. Inter-annual species-level variations in an abyssal polychaete assemblage (Sta. M, NE Pacific, 4000 m). *Prog. Oceanogr.* 140:43-53.
- 2016 McGill, P.R., R.G. Henthorn, L.E. Bird, C.L. Huffard, D.V. Klimov and K.L. Smith, Jr. Sedimentation event sensor: New ocean instrument for in situ imaging and fluorometry of sinking particulate matter. *Limnol. Oceanogr: Methods* 14:853-863.
- 2015 K.L. Smith, Jr., M. Messie, A.D. Sherman, C.L. Huffard, B.W. Hobson, H.A. Ruhl and A. Boetius. Navigating the uncertain future of global oceanic time series. *EOS* 96, doi:10.1029/2015E0038095
- 2015 C. Laguionie-Marchais, L.A. Kuhnz, C.L. Huffard, H.A. Ruhl and K.L. Smith, Jr. Variation in abyssal sponge spicule mats; Habitat patches in space and time. *Mar. Biol.* 162: 617-624.

- 2015 K.M. Dunlop, L.A. Kuhnz, H.A. Ruhl, C.L. Huffard, A.D. Sherman, D.W. Caress, R.G. Henthorn, B.W. Hobson, P.R. McGill and K.L. Smith, Jr. An evaluation of deep-sea benthic megafauna length measurements obtained with laser and stereo camera methods. *Deep-Sea Res. I* 96:38-48.
- 2014 L.A. Kuhnz, H.A. Ruhl, C.L. Huffard, and K.L. Smith, Jr. Rapid changes and long-term cycles in the benthic megafaunal community observed over 24 years in the abyssal northeast Pacific. *Prog. Oceanogr.* 124:1-11.
- 2014 H.A. Ruhl, B.J. Bett, S.J.M. Hughes, C.H.S. Alt, E.J. Ross, R.S. Lampitt, C.A. Pebody, K.L. Smith, Jr. and D.S.M. Billett. Links between deep-sea respiration and community dynamics. *Ecology* 95:1651-1662.
- 2014 C.L. Huffard, S. Von Thun, A.D. Sherman, K. Sealey and K.L. Smith, Jr. Pelagic Sargassum community change over a 40-year period: temporal and spatial variability. *Mar. Biol.* 61:2735-2751.
- 2014 K.L. Smith, Jr., A.D. Sherman, C.L. Huffard, P.R. McGill, R. Henthorn, S. Von Thun, H.A. Ruhl, M. Kahru and M.D. Ohman. Large salp bloom export from the upper ocean and benthic community response in the abyssal northeast Pacific: Day to week resolution. *Limnol. Oceanogr.* 59: 745-757.
- 2013 K.L. Smith, Jr., H.A. Ruhl, M. Kahru, C.L. Huffard and A.D. Sherman. Deep ocean communities impacted by changing climate over 24 y in the abyssal northeast Pacific. *Proc. Nat. Acad. Sci.* 110: 19838-19841.
- 2013 R.M. Jeffreys, C. Burke, A.J. Jamieson, B.E. Narayanaswamy, H.A. Ruhl, K.L. Smith Jr and U. Witte. Feeding preferences of abyssal macrofauna inferred from in situ pulse chase experiments. *PLoS One* 8: e80510. Doi:10.1371/journal.pone0080510.
- 2013 M.F. Vardaro, P.M. Bagley, D.M. Bailey, B.J. Bett, D.O.B. Jones, R.J. Milligan, I.G. Priede, C.M. Risien, G.T. Rowe, H.A. Ruhl, B.B. Sangolay, K.L. Smith, Jr., A. Walls and J. Clarke. A southeast Atlantic deep-ocean observatory: first experiences and results. *Limnol. Oceanogr. Meth.* 11: 304-315.
- 2013 S.E. Wilson, H.A. Ruhl and K.L. Smith, Jr. Zooplankton fecal pellet flux in the abyssal northeast Pacific: a 15 year time-series study. *Limnol. Oceanogr.* 58: 881-892.
- 2013 A.S. Kahn, J.B. Geller, H.M. Reiswig and K.L. Smith, Jr. *Bathydorus laniger* and *Docosaccus maculatus* (Lyssacinosa; Hexactinellida): two new species of glass sponge from the abyssal eastern North Pacific Ocean. *Zootaxa* 3646 (4): 386-400.
- 2013 C. Laguionie-Marchais, D.S.M. Billett, G.L.D. Paterson, H.A. Ruhl, E.H. Soto, K.L. Smith Jr. and S. Thatje. Interannual dynamics of abyssal polychaete communities in the north east Pacific and north east Atlantic – a family level study. *Deep-Sea Res. Pt 175*: 175-186.

- 2013 K.L. Smith, Jr., A.D. Sherman, T.J. Shaw and J. Sprintall. Icebergs as unique Lagrangian ecosystems in polar seas. *Annu. Rev. Mar. Sci.* 5: 269-287.
- 2012 M. Vernet, K.L. Smith, Jr. et al. Islands of ice: Influence of free-drifting Antarctic icebergs on pelagic marine ecosystems. *Oceanography* 25 (3): 38-39.
- 2012 J.C. Drazen, D.M. Bailey, H.A. Ruhl and K.L. Smith, Jr. The role of carrion supply in the abundance of deep-water fish off California. *PLoS ONE* 7(11): e49332.doi:10.1371/journal.pone.0049332.
- 2012 M.M. Moeseneder, K.L. Smith, Jr., H.A. Ruhl, D.O.B. Jones, U. Witte and J.I. Prosser. Temporal and depth-related differences in prokaryotic communities in abyssal sediments associated with particulate organic carbon flux. *Deep-Sea Res. I*, 70: 26-35.
- 2012 A.S. Kahn, H.A. Ruhl and K.L. Smith, Jr. Temporal changes in deep-sea sponge populations are correlated to changes in surface climate and food supply. *Deep-Sea Res. I*, 70: 36-41.
- 2011 K.L. Smith, Jr. Free-drifting icebergs in the Southern Ocean: an overview. *Deep-Sea Res. II*, 58: 1277-1284.
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- 2009 K.L. Smith, Jr., H.A. Ruhl, B.J. Bett, D.S.M. Billett, R.S. Lampitt and R.S. Kaufmann. Climate, carbon cycling, and deep-ocean ecosystems. *Proc. Nat. Acad. Sci.*, 106, 19211-19218. (8 pages)

- 2009 N.R. Holland, W.J. Jones, J. Ellena, H.A. Ruhl and K.L. Smith, Jr. A new deep-sea species of epibenthic acorn worm (Hemichordata, Enteropneusta). *Zoosystema*, 31, 333 – 346. (14 pages)
- 2009 M.F. Vardaro, H.A. Ruhl and K.L. Smith, Jr. Climate variation, carbon flux, and bioturbation in the abyssal North Pacific. *Limnol. Oceanogr.*, 54, 2081-2088. (8 pages)
- 2009 A.D. Sherman and K.L. Smith, Jr. Deep-sea benthic boundary layer communities and food supply: A long-term monitoring strategy. *Deep-Sea Res. II*, 56, 1754-1762. (9 pages)
- 2009 P.R. McGill, A.D. Sherman, B.W. Hobson, R.G. Henthorn and K.L. Smith, Jr. Initial deployments of the Rover, an autonomous bottom-transecting instrument platform. *J. Ocean. Tech.* 4, 9-26. (18 pages)
- 2008 H.A. Ruhl, J. A. Ellena and K.L. Smith, Jr. Connections between climate, food limitation, and carbon cycling in abyssal sediment communities. *Proc. Nat. Acad. Sci.* 105, 17006-17011. (6 pages)
- 2008 J.C. Drazen, B.N. Popp, C.A. Choy, T. Clemente, L. DeForest and K.L. Smith, Jr. Bypassing the abyssal benthic food web: Macrourid diet in the eastern North Pacific inferred from stomach content and stable isotopes analyses. *Limnol. Oceanogr.* 53, 2644-2654. (11 pages)
- 2008 K.L. Smith, Jr., H.A. Ruhl, R.S. Kaufmann, M. Kahru. Tracing abyssal food supply back to upper-ocean processes over a 17-year time series in the NE Pacific. *Limnol. Oceanogr.* 53, 2655-2667. (13 pages)
- 2008 J.A.T. Booth, H.A. Ruhl, L.L. Lovell, K.L. Smith, Jr. Size frequency dynamics of NE Pacific abyssal ophiuroids (Echinodermata: Ophiuroidea). *Mar. Biol.* 154, 933-941. (9 pages)
- 2007 P.R. McGill, A.D. Sherman, B.W. Hobson, R.G. Henthorn, A.C. Chase, K.L. Smith, Jr. Initial Deployments of the Benthic Rover, an Autonomous Bottom-Transecting Instrument Platform for Long-Term Measurements in Deep Benthic Environments. *Proceedings of the MTS/IEE Oceans Conference, Vancouver, British Columbia.* (5 pages)
- 2007 K.L. Smith, Jr., B.H. Robison, J.J. Helly, R.S. Kaufmann, H.A. Ruhl, T.J. Shaw, B.S. Twining and M. Vernet. Free-drifting icebergs: hotspots of chemical and biological enrichment in the Weddell Sea. *Science* 317, 478-482. (5 pages)
- 2007 M.F. Vardaro, D. Parmley and K.L. Smith, Jr. A study of possible “reef effects” caused by a long-term time-lapse camera in the deep North Pacific. *Deep-Sea Res. I.* 54, 1231-1240. (10 pages)

- 2006 D.M. Bailey, H.A. Ruhl and K.L. Smith, Jr. Long-term changes in benthopelagic fish abundance in the abyssal Northeast Pacific Ocean. *Ecology* 87, 549-555. (7 pages)
- 2006 K.L. Smith, Jr., R.J. Baldwin, H.A. Ruhl, M. Kahru, B.G. Mitchell and R.S. Kaufmann. Climate effect on food supply to depths greater than 4,000 meters in the northeast Pacific. *Limnol. Oceanogr.* 51, 166-176. (11 pages)
- 2005 K.L. Smith, Jr., N.D. Holland and H.A. Ruhl. Enteropneust production of spiral fecal trails on the deep-sea floor observed with time-lapse photography. *Deep-Sea Res. I.* 52, 1228-1240. (13 pages)
- 2004 J. Hwang, E.R.M. Druffel, S. Griffin, K.L. Smith, Jr., R.J. Baldwin and J.E. Bauer. Temporal variability of delta 14C, 13C and C/N in sinking particulate organic matter at a deep time-series station in the Northeast Pacific Ocean. *Global Biogeochem. Cycl.* 18, GB4015, doi:10.1029/2004GB002221. (10 pages)
- 2004 H.A. Ruhl and K.L. Smith, Jr. Shifts in deep-sea community structure linked to climate and food supply. *Science* 305, 513-515. (3 pages)
- 2004 E.C. Fisher, R.S. Kaufmann and K.L. Smith, Jr. Variability of epipelagic macrozooplankton/micronekton community structure in the NW Weddell Sea, Antarctica (1995 – 1996). *Mar. Biol.* 144, 345-360. (16 pages)
- 2004 I.G. Priede, A.R. Deary, D.M. Bailey and K.L. Smith, Jr. Low activity and seasonal change in population size structure of grenadiers in the oligotrophic abyssal central North Pacific Ocean. *J. Fish Biol.* 63, 187-196. (10 pages)
- 2003 R.J. Baldwin and K.L. Smith, Jr. Temporal dynamics of particulate matter fluxes and sediment community response in Port Foster, Deception Island, Antarctica. *Deep-Sea Res. II.* 50, 1707- 1725. (19 pages).
- 2003 K.L. Smith, Jr., R.J. Baldwin, R.C. Glatts, T.K. Chereskin, H. Ruhl and V. Lagun. Weather, ice, and snow conditions at Deception Island, Antarctica: long time-series photographic monitoring. *Deep-Sea Res. II.* 50, 1649- 1664 (16 pages)
- 2003 R.C. Glatts, A.H. Uhlman, K.L. Smith, Jr. and R.J. Baldwin. Long time-series monitoring of the ecosystem at Deception Island, Antarctica: description of instrumentation. *Deep-Sea Res. II.* 50, 1631- 1648. (18 pages)
- 2003 K.L. Smith, Jr., R.J. Baldwin, R.S. Kaufmann and A. Sturz. ERUPT: Ecosystem studies at Deception Island, Antarctica: an overview. *Deep-Sea Res. II.* 50, 1595- 1609. (15 pages)
- 2002 K.L. Smith, Jr., R.J. Baldwin, D.M. Karl and A. Boetius. Benthic community responses to pulses in pelagic food supply: North Pacific Subtropical Gyre. *Deep-Sea Res. I.* 49, 971-990. (20 pages)

- 2001 K.L. Smith, Jr., R.S. Kaufmann, R.J. Baldwin and A.F. Carlucci. Pelagic-benthic coupling in the abyssal eastern North Pacific: an 8-year time-series study of food supply and demand. *Limnol. Oceanogr.* 46, 543-556. (14 pages)
- 1999 K.L. Smith, Jr. and R.S. Kaufmann. Long-term discrepancy between food supply and demand in the deep eastern North Pacific. *Science* 284, 1174- 1177. (4 pages)
- 1998 J.C. Drazen, R.J. Baldwin and K.L. Smith, Jr. Sediment community response to a temporally varying food supply at an abyssal station in the NE Pacific. *Deep-Sea Res. II.* 45, 893-913. (21 pages)
- 1998 K.L. Smith, Jr., R.J. Baldwin, R.C. Glatts, R.S. Kaufmann and E.R. Fisher. Detrital aggregates on the sea floor: chemical composition and aerobic decomposition rates at a time-series station in the abyssal NE Pacific. *Deep-Sea Res. II.* 45, 843-880. (38 pages)
- 1998 S.E. Beaulieu and K.L. Smith, Jr. Phytodetritus entering the benthic boundary layer and aggregated on the sea floor in the abyssal NE Pacific: macro- and microscopic composition. *Deep-Sea Res. II.* 45, 781-815. (35 pages)
- 1998 R.J. Baldwin, R.C. Glatts and K.L. Smith, Jr. Particulate matter fluxes into the benthic boundary layer at a long time-series station in the abyssal NE Pacific: composition and fluxes. *Deep-Sea Res. II.* 45, 643-665. (23 pages)
- 1998 K.L. Smith, Jr. and E.R.M. Druffel. Long time-series monitoring of an abyssal site in the NE Pacific: an introduction. *Deep-Sea Res. II.* 45, 573-586. (14 pages)
- 1997 K.L. Smith, Jr., R.C. Glatts, R.J. Baldwin, A.H. Uhlman, R.C. Horn, C.E. Reimers and S.E. Beaulieu. An autonomous, bottom-transecting vehicle for making long time-series measurements of sediment community oxygen consumption to abyssal depths. *Limnol. Oceanogr.* 42, 1601- 1612. (12 pages)
- 1997 K.L. Smith, Jr. and R.J. Baldwin. Laboratory and in situ methods for studying deep-sea fishes. In: W.S. Hoar, D.J. Randall and A. Farrell, eds., *Fish Physiology*, Vol. 16: *Deep-Sea Fishes*. Academic Press, San Diego, pp. 351-378. (28 pages)
- 1997 L.M.L. Lauerma, J.M. Smoak, T.J. Shaw, W.S. Moore and K.L. Smith, Jr. <sup>234</sup>Th and <sup>210</sup>Pb evidence for rapid ingestion of settling particles by mobile epibenthic megafauna in the abyssal NE Pacific. *Limnol. Oceanogr.* 42, 589-595. (7 pages)
- 1997 R.S. Kaufmann and K.L. Smith, Jr. Activity patterns of mobile epibenthic megafauna at an abyssal site in the eastern North Pacific: results from a 17-month time-lapse photographic study. *Deep-Sea Res.* 44, 559-579. (21 pages)
- 1996 L.M.L. Lauerma, R. S. Kaufmann and K. L. Smith, Jr. Distribution and abundance of epibenthic megafauna at a long time-series station in the abyssal NE Pacific. *Deep-Sea Res.* 43, 1075-1104. (30 pages)

- 1995 R.S. Kaufmann, K. L. Smith, Jr., R. J. Baldwin, R. C. Glatts, B. H. Robison and K. R. Reisenbichler. The effects of seasonal pack ice on the distribution of macrozooplankton and micronekton in the northwestern Weddell sea. *Mar. Biol.* 124, 387. (11 pages)
- 1994 I.G. Priede, P. M. Bagley and K. L. Smith, Jr. Seasonal change in activity of abyssal demersal scavenging grenadiers *Coryphaenoides (Nematonurus) armatus* in the eastern North Pacific Ocean. *Limnol. Oceanogr.* 39, 279. (7 pages)
- 1994 K.L. Smith, Jr., R. S. Kaufmann and R. J. Baldwin. Coupling of near-bottom pelagic and benthic processes at abyssal depths in the eastern North Pacific Ocean. *Limnol. Oceanogr.* 39, 1101. (18 pages)
- 1993 K.L. Smith, Jr., R. S. Kaufmann and W. W. Wakefield. Mobile megafaunal activity monitored with a time-lapse camera in the abyssal North Pacific. *Deep-Sea Res.* 40, 2307. (18 pages)
- 1992 K. L. Smith, Jr. Benthic boundary layer communities and carbon cycling at abyssal depths in the central North Pacific. *Limnol. Oceanogr.* 37(5), 1034. (23 pages)
- 1992 K. L. Smith, Jr., R. J. Baldwin and P. M. Williams. Reconciling particulate organic carbon flux and sediment community oxygen consumption in the deep North Pacific. *Nature* 359, 313. (4 pages)
- 1992 K. L. Smith, Jr., R. S. Kaufmann, J. L. Edelman and R. J. Baldwin. Abyssopelagic fauna in the central North Pacific: comparison of acoustic detection and trawl and baited trap collections to 5800 m. *Deep-Sea Res.* 39, 659. (25 pages)
- 1991 I. G. Priede, P. M. Bagley, J. D. Armstrong, K. L. Smith, Jr. and N. R. Merrett. Direct measurement of active dispersal of food-falls by deep-sea demersal fishes. *Nature* 351, 647. (2 pages)
- 1991 J.D. Armstrong, I.G. Priede and K.L. Smith, Jr.: Temporal change in foraging behaviour of the fish *Coryphaenoides (Nematonurus) yaquinae* in the central North Pacific. *Mar. Ecol. Prog. Ser.* 76, 195. (5 pages)
- 1990 I. G. Priede, K. L. Smith, Jr. and J. D. Armstrong. Foraging behaviour of abyssal grenadier fish: Inferences from acoustic tagging and tracking in the North Pacific Ocean. *Deep-Sea Res.* 37, 81. (21 pages)
- 1990 W. W. Wakefield and K. L. Smith, Jr. Ontogenetic vertical migration in *Sebastolobus altivelis* as a mechanism for transport of particulate organic matter at continental slope depths. *Limnol. Oceanogr.* 35, 1314. (15 pages)
- 1989 K. L. Smith, Jr., D. Alexandrou and J. L. Edelman. Acoustic detection and tracking of abyssopelagic animals: Description of an autonomous split-beam acoustic array. *Deep-Sea Res.* 36, 1427. (14 pages)



- 1989 K. L. Smith, Jr. and W. C. Schwab (guest editors). Biological, physical and geological studies of four Pacific seamounts. *Deep-Sea Res.* 36 (12), (Special issue w/8 manuscripts)
- 1989 K. L. Smith, Jr., R. J. Baldwin and J. L. Edelman. Supply of and demand for organic matter by sediment communities on two central N. Pacific seamounts. *Deep-Sea Res.* 36, 1917. (19 pages)
- 1989 K. L. Smith, Jr., W. C. Schwab, M. Noble and C. de Moustier. Physical, geological and biological studies on four Pacific seamounts: Introduction. *Deep-Sea Res.* 36, 1785. (6 pages)
- 1989 K. L. Smith, Jr., P. M. Williams and E.R.M. Druffel. Upward fluxes of particulate organic matter in the deep North Pacific. *Nature* 337, 724. (3 pages)
- 1989 K. L. Smith, Jr. Short time-series measurements of particulate organic carbon flux and sediment community oxygen consumption in the North Pacific. *Deep-Sea Res.* 36, 1111. (9 pages)
- 1987 A. C. Bucklin, R. R. Wilson, Jr. and K. L. Smith, Jr. Genetic differentiation of seamount and basin populations of the deep-sea amphipod *Eurythenes gryllus*. *Deep-Sea Res.* 34, 1795. (16 pages)
- 1986 I. G. Priede and K. L. Smith, Jr. Behaviour of the abyssal grenadier, *Coryphaenoides yaquinae*, monitored using ingestible acoustic transmitters in the Pacific Ocean. *J. Fish. Biol.* 29 (Suppl. A), 199. (8 pages)
- 1987 P. M. Williams, E. R. M. Druffel and K. L. Smith, Jr. Dietary carbon sources for deep-sea organisms as inferred from their organic radiocarbon activities. *Deep-Sea Res.* 34, 253. (14 pages)
- 1986 C.E. Reimers, K. M. Fischer, R. Merewether, K. L. Smith, Jr., and R. A. Jahnke. Oxygen microprofiles measured in situ in deep ocean sediments. *Nature* 320, 741. (4 pages)
- 1987 R. J. Baldwin and K. L. Smith, Jr. Temporal variation in the catch rate, length, color and sex of the necrophagous amphipod, *Eurythenes gryllus*, from the central and eastern North Pacific. *Deep-Sea Res.* 34, 425. (15 pages)
- 1987 K. L. Smith, Jr., A. F. Carlucci, R. A. Jahnke and D. B. Craven. Organic carbon mineralization in the Santa Catalina Basin: benthic boundary layer metabolism. *Deep-Sea Res.* 34, 185. (27 pages)
- 1987 K. L. Smith, Jr. Food energy supply and demand: A discrepancy between particulate organic carbon flux and sediment community oxygen consumption in the deep ocean. *Limnol. Oceanogr.* 32, 201. (20 pages)

- 1986 K. L. Smith, Jr., A. F. Carlucci, P. M. Williams, S. M. Henrichs, R. J. Baldwin and D. B. Craven. Zooplankton and bacterioplankton of an abyssal benthic boundary layer: In situ rates of metabolism. *Oceanologica Acta* 9, 47. (9 pages)
- 1986 C. E. Reimers and K. L. Smith, Jr. Reconciling measured and predicted fluxes of oxygen across the deep-sea sediment-water interface. *Limnol. Oceanogr.* 31, 305. (14 pages)
- 1985 R. R. Wilson, Jr., K. L. Smith, Jr. and R. H. Rosenblatt. Megafauna associated with bathyal seamounts in the central North Pacific Ocean. *Deep-Sea Res.* 32, 1243. (12 pages)
- 1985 R. R. Wilson, Jr. and K. L. Smith, Jr. Live capture, maintenance and partial decompression of a deep-sea grenadier fish (*Coryphaenoides acrolepis*) in a hyperbaric trap-aquarium. *Deep-Sea Res.* 31, 1571. (12 pages)
- 1985 M. B. Laver, M. S. Olsson, J. L. Edelman and K. L. Smith, Jr. Swimming rates of scavenging deep-sea amphipods recorded with a free vehicle video camera. *Deep-Sea Res.* 32, 1135. (8 pages)
- 1985 K. L. Smith, Jr. Deep-sea hydrothermal vent mussels: Nutritional state and distribution at Mussel Bed Site, Galapagos Rift. *Ecology* 66, 1067. (14 pages)
- 1985 K. L. Smith, Jr. Macrozooplankton of a deep-sea hydrothermal vent: In situ rates of oxygen consumption. *Limnol. Oceanogr.* 30, 102. (9 pages)
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