Relevant papers

Google Scholar Profile: http://scholar.google.com/citations?user=vwV5yIsAAAAJ&hl=en

- Peer-reviewed Journals and Book Chapters (reverse chrono.):

Student authors in *italics*.

[99] *Kerr JM*, Purkis SJ (2018) An algorithm for optically-deriving water depth from multispectral imagery in coral reef landscapes in the absence of ground-truth data. Remote Sensing of Environment 210:307-324

[98] Harris PM, Purkis SJ, Reyes B (2018) Statistical pattern analysis of surficial karst in the Pleistocene Miami oolite of South Florida. Sedimentary Geology 367:84-95

[97] Purkis SJ (2018) Remote sensing tropical coral reefs: The view from above. Annual Review of Marine Science 10:149-168

[96] Riegl B, Bauman A, Cavalcante G, Bauman AG, Feary DA, Steiner S, Purkis SJ (2017) Demographic mechanisms of reef coral species winnowing from communities under increased environmental stress. Frontiers in Marine Science 4:344, doi: 10.3389/fmars.2017.00344

[95] Sheppard C, Sheppard A, Mogg A, Bayley D, Dempsey A, Roche R, Turner J, Purkis SJ (2017) Coral bleaching and mortality in the Chagos Archipelago to 2017. Atoll Research Bulletin 613:1:26

[94] Purkis SJ, Cavalcante G, Rohtla L, Oehlert AM, Harris PM, Swart PK (2017) Hydrodynamic control of whitings on Great Bahama Bank. Geology 45:939-942

[93] *Boldrocchi G*, Kiszka J, Purkis SJ, Storai T, Zinzula L, Burkholder, D (2017) Distribution, ecology, and status of the white shark, *Carcharodon carcharias*, in the Mediterranean Sea. Reviews in Fish Biology and Fisheries 27:515-534

[92] Purkis SJ, Harris PM (2017) Quantitative interrogation of a fossilized carbonate sand body – The Pleistocene Miami oolite of South Florida. Sedimentology 64:1439–1464

[91] Purkis SJ, Rivers J. Strohmenger CJ, Warren C, *Yousif R*, *Ramirez L*, Riegl B (2017) Complex interplay between depositional and petrophysical environments in Holocene tidal carbonates (Al Ruwais, Qatar). Sedimentology 64(6):1646-1675

[90] Purkis SJ, Harris PM (2017) Morphometric comparison of the Pleistocene Miami oolite and modern high-energy sand bodies of Great Bahama Bank. AAPG Search and Discovery Article #51374.

[89] Harris PM, Purkis SJ (2016) The role of islands in influencing carbonate platform-top deposits. AAPG Search and Discovery Article #51287. pp. 1-6.

[88] Budd DA, Hajek EA, Purkis SJ (2016) Introduction to autogenic dynamics and self-organization in sedimentary systems. pp. 1-4. *In* Budd DA, Hajek EA, Purkis SJ (Editors). 2016. Autogenic Dynamics and Self-Organization in Sedimentary Systems, Special Publication 106: SEPM (Society for Sedimentary Geology), Tulsa, Oklahoma. 216 p.

[87] Purkis SJ, vd Koppel J, Burgess PM (2016) Spatial self-organization in carbonate depositional environments. pp. 53-66. *In* Budd DA, Hajek EA, Purkis SJ (Editors). 2016. Autogenic Dynamics and Self-Organization in Sedimentary Systems, Special Publication 106: SEPM (Society for Sedimentary Geology), Tulsa, Oklahoma. 216 p.

[86] *Rowlands G*, Purkis SJ, Bruckner A (2016) Tight coupling between coral reef morphology and mapped resilience in the Red Sea. Marine Pollution Bulletin. 105:575-585

[85] Warren C, DuPont J, Abdel-Moati M, Hobeichi S, Palandro D, Purkis SJ (2016) Toward the development of a remote sensing and field data framework to aid management decisions in the State of Qatar coastal environment. Marine Pollution Bulletin. 105:641-653

[84] Purkis SJ, *Gardiner R*, *Johnston MW*, Sheppard CRC (2016) A half-century of coastline change in Diego Garcia – the largest atoll island in the Chagos. Geomorphology. 261:282–298

[83] Purkis SJ, Harris PM (2016) The extent and patterns of sediment filling of accommodation space on Great Bahama Bank. Journal of Sedimentary Research 86:294-310

[82] *Saul S*, Purkis SJ (2015) Semi-automated object-based classification of coral reef habitat using discrete choice models. Remote Sensing 7:15894-15916

[81] *Johnston MW*, Purkis SJ (2016) Forecasting the success of invasive marine species; lessons learned from purposeful reef fish releases in the Hawaiian Islands. Fisheries Research 174:190-200

[80] *Johnston MW*, Purkis SJ, Dodge RE (2015) Measuring Bahamian lionfish impacts to marine ecological services using habitat equivalency analysis. Marine Biology. 162:2501-2512

[79] *Codevilla F*, Botelho SSC, Duarte N, Purkis SJ, Shihavuddin ASM, Garcia R, Gracias N (2015) Geostatistics for context-aware image classification. *In*: Nalpantidis L et al. (Eds.): ICVS 2015, LNCS 9163, pp. 228–239. DOI: 10.1007/978-3-319-20904-3 22

[78] Riegl BR, Purkis SJ (2015) Coral population dynamics across consecutive mass mortality events. Global Change Biology. 21:3995-4005

[77] *Johnston MW*, Purkis SJ (2015) A coordinated and sustained international strategy is required to turn the tide on the Atlantic lionfish invasion. Marine Ecology Progress Series 533:219-235

[76] *Rowlands G*, Purkis SJ (2015) Geomorphology of shallow water coral reef environments in the Red Sea. Chapter 24 (p. 395-408) *In*: The Red Sea. The formation, morphology, and environment of a young ocean basin. N. Rasul and I. Stuart (eds.) Springer Publishing, Germany. ISBN 978-3-662-45201-1

[75] Lang MW, Purkis SJ, Klemas VK, Tiner RW (2015) Promising developments and future challenges for remote sensing of wetlands. *In* Wetlands Remote Sensing: Applications and advances. *Eds* R. Tiner, M. Lang and V. Klemas. CRC Press – Taylor and Francis Group. P. 533-544. ISBN-13: 978-1482237351

[74] Purkis SJ, Roelfsema C (2015) Remote sensing of submerged aquatic vegetation and coral reefs. *In* Wetlands Remote Sensing: Applications and advances. *Eds* R. Tiner, M. Lang and V. Klemas. CRC Press – Taylor and Francis Group. P. 223-241. ISBN-13: 978-1482237351

[73] Purkis SJ, Casini G, Hunt D, Colpaert A (2015) Morphometric patterns in Modern carbonate platforms can be applied to the ancient rock record: Similarities between Modern Alacranes Reef and Upper Palaeozoic platforms of the Barents Sea. Sedimentary Geology 321:49-69

Online: http://dx.doi.org/10.1016/j.sedgeo.2015.03.001

[72] Glynn PW, Riegl BR, Purkis SJ, *Kerr JM*, Smith T (2015) Coral reef recovery in the Galápagos Islands: the northern-most islands (Darwin and Wenman). Coral Reefs 34:421-436

[71] *Johnston MW*, Purkis SJ (2015) Hurricanes accelerated the Florida-Bahamas lionfish invasion. Global Change Biology 21:2249–2260

[70] Riegl B, Glynn PW, Wieters E, Purkis SJ, d'Angelo C, Wiedenmann J (2015) Water column productivity and temperature effects predict coral reef trajectories across the Indo-Pacific. Nature - Scientific Reports 5:8723 | DOI: 10.1038/srep08273

[69] Schlager W, Purkis SJ (2015) Reticulate reef patterns – antecedent karst versus self-organization. Sedimentology. 62:501-515

[68] Harris PM, Purkis SJ, Ellis J, Swart PK, Reijmer JJG (2015) Mapping bathymetry and depositional facies on Great Bahama Bank. Sedimentology 62:566-589

[67] Purkis SJ, *Rowlands G*, *Kerr JM* (2015) Unravelling the influence of water depth and wave energy on the facies diversity of shelf carbonates. Sedimentology. 62:541-565

[66] Purkis SJ, *Kerr J*, *Dempsey A*, *Calhoun A*, *Metsamaa L*, Riegl B, Kourafalou V, Bruckner A, Renaud P (2014) Large-scale carbonate platform development of Cay Sal Bank, Bahamas, and implications for associated reef geomorphology. Geomorphology 222:25-38

[65] *Johnston MW*, Purkis SJ (2014) Are lionfish set for a Mediterranean invasion? Modelling explains why this is unlikely to occur. Marine Pollution Bulletin 88:138-147

[64] *Rowlands G*, Purkis SJ, Bruckner A (2014) Diversity in the geomorphology of shallow-water carbonate depositional systems in the Saudi Arabian Red Sea. Geomorphology 222:3-13

[63] *Johnston MW*, Purkis SJ (2014) Lionfish in the eastern Pacific; a cellular automaton approach to assessing invasion risk. Biological Invasions. 16:2681-2695

[62] Harris PM, Purkis SJ, Ellis J (2014) Evaluating water-depth variation and mapping depositional facies on Great Bahama Bank - a "flat-topped" isolated carbonate platform. SEPM Short Course Notes No. 56, paper p. 1-44, and 1 DVD. ISBN: 978-56576-333-3

[61] *Johnston MW*, Purkis SJ (2013) Modelling the potential spread of the recently identified non-native panther grouper (*Chromileptes altivelis*) in the Atlantic using a cellular automaton approach. PLoS ONE 8(8):e73023

[60] Schlager W, Purkis SJ (2013) Bucket structure in carbonate accumulations of the Maldive, Chagos and Laccadive archipelagos. International Journal of Earth Sciences 102:2225-2238

[59] Brock JC, Danielson JJ, Purkis SJ (2013) Emerging methods for the study of coastal ecosystem landscape structure and change. International Journal of Remote Sensing 34:6283-6285 (Special Issue with Guest Editors – Purkis, Brock and Danielson)

[58] Feary DA, Burt JA …. Purkis SJ, and many others (2013) Critical research needs for identifying future changes in Gulf coral reef ecosystems. Marine Pollution Bulletin 72:406-416

[57] Sheppard CRC, Ateweberhan M, Chen AC, Harris A, Jones R, Keshavmurthy S, Lundin C, Obura D, Purkis SJ, Raines P, Riegl B, Schleyer M, Sheppard ALS, Tamelander J, Turner JR, Visram S, Yang S-Y (2013). Coral Reefs of the Chagos Archipelago, Indian Ocean. *In* Coral Reefs of the UK Overseas Territories. Springer

[56] Harris PM, Ellis J, Purkis SJ (2013) Assessing the extent of carbonate deposition in early rift settings. American Association of Petroleum Geologists (AAPG) Bulletin 97:27-60. *THIS MANUSCRIPT RECEIVED THE 2015 CERTIFICATE OF MERIT FROM THE AMERICAN ASSOCIATION OF PETROLEUM GEOLOGISTS.*

[55] Purkis SJ, Brock JC (2013) LiDAR overview. *In* Coral reef remote sensing: a guide for multi-level sensing, mapping and assessment. Goodman JA, Purkis SJ, and Phinn SR (Eds.). Springer

[54] Purkis SJ, Harris PM, Ellis J (2012) Patterns of sedimentation in the contemporary Red Sea as an analog for ancient carbonates in rift settings. Journal of Sedimentary Research 82:859–870

[53] *Taylor KH*, Purkis SJ (2012) Evidence for the southward migration of mud banks in Florida Bay. Marine Geology 311-314:52–56

[52] *Foster K*, *Foster G*, Al-Cibahy AS, *Al-Harthi S*, Purkis SJ, Riegl BM (2012) Environmental setting and temporal trends in southeastern Gulf coral communities. *In* Coral reefs of the Gulf: Adaptation to climatic extremes. Riegl BM and Purkis SJ (Eds.) Hardcover, ISBN 978-94-007-3007-6. Springer

[51] Riegl BM, Sheppard C, Purkis SJ (2012) Human impact on atolls leads to coral loss and community homogeneisation: a modelling study. PLoS ONE 7:e36921

[50] *Johnston MW*, Purkis SJ (2012) Invasionsoft: A web-enabled tool for invasive species colonization predictions. Aquatic Invasions 3:405-417

[49] Riegl BM, Bruckner A, *Rowlands G*, Purkis SJ, Renaud P (2012) Red Sea coral reef trajectories over 2 decades show increasing community homogeneisation and decline in coral size. PLoS One 7(5): e38396

[48] *Rowlands G*, Purkis SJ, Riegl B, *Metsamaa L*, Bruckner A, Renaud, P (2012) Satellite imaging coral reef resilience at regional scale. A case-study from Saudi Arabia. Marine Pollution Bulletin 64:1222-1237

[47] Purkis SJ, Vlaswinkel B (2012) Visualizing lateral anisotropy in modern carbonates. American Association of Petroleum Geologists (AAPG) Bulletin 96:1665-1685

[46] Harris PM, Ellis J, Purkis SJ (2012) Analogs for carbonate deposition in early rift settings. SEPM Short Course Notes No. 55, paper p. 1-75, and 2 DVDs. ISBN: 978-1-56576. Product Code: 61055

[45] Purkis SJ, Vlaswinkel B, Gracias N (2012) Vertical-to-lateral transitions among Cretaceous carbonate facies – a means to 3-D framework construction via Markov analysis. Journal of Sedimentary Research 82:232-243

[44] *Correa TBS*, Eberli GP, Grasmueck M, Reed JK, Verwer K, Purkis SJ (2012) Variability of cold-water coral mounds in a high sediment input and tidal current regime, Straits of Florida. Sedimentology 59:1278–1304

[43] Pinsky ML, Palumbi SR, Andréfouët S, Purkis SJ (2012). Open and closed seascapes: where does habitat patchiness create populations with high fractions of self-recruitment? Ecological Applications 22:1257-67

[42] Purkis SJ, Riegl BM (2012) Geomorphology and Reef Building in the SE Gulf. *In* Coral reefs of the Gulf: Adaptation to climatic extremes. Riegl BM and Purkis SJ (Eds.) Hardcover, ISBN 978-94-007-3007-6. Springer

[41] Riegl BM, Purkis SJ (2012) Coral reefs of the Gulf: Adaptation to climatic extremes in the world's hottest sea. *In* Coral reefs of the Gulf: Adaptation to climatic extremes. Riegl BM and Purkis SJ (Eds.) Hardcover, ISBN 978-94-007-3007-6. Springer

[40] Riegl BM, Purkis SJ (2012) Environmental constraints for reef building in the Gulf. *In* Coral reefs of the Gulf: Adaptation to climatic extremes. Riegl BM and Purkis SJ (Eds.) Hardcover, ISBN 978-94-007-3007-6. Springer

[39] Riegl BM, Purkis SJ (2012) Dynamics of Gulf coral communities: observations and models from the world's hottest coral sea. *In* Coral reefs of the Gulf: Adaptation to climatic extremes. Riegl BM and Purkis SJ (Eds.) Hardcover, ISBN 978-94-007-3007-6. Springer

[38] Riegl BM, Purkis SJ, Al-Cibahy A, *Al-Harthi S*, Grandcourt E, Al-Sulaiti K, Baldwin J, Abdel-Moati A (2012) Coral bleaching and mortality thresholds in the SE Gulf: Highest in the world. *In* Coral reefs of the Gulf: Adaptation to climatic extremes. Riegl BM and Purkis SJ (Eds.) Hardcover, ISBN 978-94-007-3007-6. Springer

[37] Riegl BM, Bruckner AW, *Samimi-Namin K*, Purkis SJ (2012) Diseases, harmful algae blooms (HABs) and their effects on Gulf coral populations and communities. *In* Coral reefs of the Gulf: Adaptation to climatic extremes. Riegl BM and Purkis SJ (Eds.) Hardcover, ISBN 978-94-007-3007-6. Springer

[36] *Correaa TBS*, Grasmueck M, Eberli GP, Verwer K, Purkis SJ (2012) Deep acoustic applications. *In* Coral reef remote sensing: a guide for multi-level sensing, mapping and assessment. Goodman JA, Purkis SJ, and Phinn SR (Eds.). Springer

[35] Sheppard CRC, Ateweberhan M, Bowen BW, Carr P, Chen CA, Clubbe C, Craig MT, Ebinghaus R, Eble J, Fitzsimmons N, Gaither MR, Gan C-H, Gollock M, Guzman N, Graham NAJ, Harris A, Jones R, Keshavmurthy S, Koldewey H, Lundin CG, Mortimer JA, Obura D, Pfeiffer M, Price ARG, Purkis SJ, Raines P, Readman JW, Riegl B, Rogers A, Schleyer M, Seaward MRD, Sheppard ALS, Tamelander J, Turner JR, Visram S, Vogler C, Vogt S, Wolschke H, Yang J M-C, Yang S-Y, Yesson C (2012) Reefs and islands of the Chagos Archipelago, Indian Ocean: why it is the world's largest no-take marine protected area. Aquatic Conservation: Marine and Freshwater Ecosystems. DOI: 10.1002/aqc.1248

[34] Riegl BM, Purkis SJ (2011) Methods to Preserve Coral Reef Futures. Science E-Letter [Published 8 Dec., 2011]

[33] Riegl BM, Purkis SJ, Al-Cibahy AS, Abdel-Moati MA, Hoegh-Guldberg O (2011) Present limits to heat-adaptability in corals and population-level responses to climate extremes. PLoS ONE 6(9): e24802. doi:10.1371/journal.pone.0024802

[32] *Johnston MW*, Purkis SJ (2011) Spatial analysis of the invasion of lionfish in the western Atlantic and Caribbean. Marine Pollution Bulletin 62:1218–1226

[31] Harris PM, Purkis SJ, Ellis, J (2011) Analyzing spatial patterns in modern carbonate sand bodies from Great Bahama Bank. Journal of Sedimentary Research 81:185-206

[30] Purkis SJ, *Renegar DA*, Riegl BM (2011) The most temperature-adapted corals have an Achilles' Heel. Marine Pollution Bulletin 62:246–250

[29] Riegl BM, Purkis SJ (2011) Persian/Arabian Gulf Coral Reefs. *In*: Encyclopaedia of Modern Coral Reefs. Springer-Verlag, pp. 1206, ISBN: 978-90-481-2640-8

[28] Harris PM, Ellis J, Purkis SJ (2010) Delineating and quantifying depositional facies patterns of modern carbonate sand deposits on Great Bahama Bank. SEPM (Society for Sedimentary Geology) Short Course 54. DVD. ISBN: 978-1-56576-301-2

[27] Purkis SJ, *Rowlands GP*, Riegl BM, Renaud PG (2010) The paradox of tropical karst morphology in the coral reefs of the arid Middle East. Geology 38:227-230 *THIS MANUSCRIPT RECEIVED EXTENSIVE MEDIA COVERAGE BY, AMONG OTHERS, THE BBC AND NATURE*

[26] Sheppard C, Al-Husiani M, Al-Jamali F, Al-Yamani F, Baldwin R, Bishop J, Benzoni F, Dutrieux E, Dulvy NK, Durvasula SRV, Jones DA, Loughland R, Medio D, Nithyanandan M, Pilling GM, Polikarpov I, Price ARG, Purkis SJ, Riegl B, Saburova M, Namin KS, Taylor O, Wilson S, Zainal K (2010) The Persian/Arabian Gulf: A young sea in decline. Marine Pollution Bulletin 60:13-38

[25] Brock JC, Purkis SJ (2009) The emerging role of LiDAR remote sensing in coastal research and resource management. Journal of Coastal Research 53:1-5 SPECIAL ISSUE (Purkis & Brock Editors)

[24] Graham NAJ, Purkis SJ, Harris A (2009) Diurnal, land-based predation on shore crabs by moray eels in the Chagos Archipelago. Coral Reefs 28:397

[23] Riegl BM, Purkis SJ (2009) Model of coral population response to accelerated bleaching and mass mortality in a changing climate. Ecological Modelling 220:192–208

[22] Riegl B, Purkis SJ (2009) Markov models for linking facies in space and time (Arabian Gulf, Miocene Paratethys) in: Swart P, McKenzie J (eds) Perspectives in Sedimentary Geology: A Tribute to the Career of Robert Ginsburg, International Association of Sedimentologists (IAS) Special Publication. 41: 337–360

[21] Riegl BM, Purkis SJ, *Keck J*, *Rowlands GP* (2009) Monitored and modelled coral population dynamics and the refuge concept. Marine Pollution Bulletin 58:24–38

[20] *Rowlands GP*, Purkis SJ, Riegl BM (2008) The 2005 coral-bleaching event Roatan (Honduras): Use of pseudo-invariant features (PIFs) in satellite assessments. Journal of Spatial Science 53:99-112

[19] Purkis SJ, Kohler KE (2008) The role of topography in promoting fractal patchiness in a carbonate shelf landscape. Coral Reefs 27:977-989

[18] Riegl BM, Purkis SJ, Houk P, Cabrera G, Dodge RE (2008) Geologic setting and geomorphology of coral reefs in the Mariana Islands (Guam and Commonwealth of the Northern Mariana Islands). *In:* Coral Reefs of the USA. Riegl BM Dodge RE (Eds) 687-715 pp

[17] Purkis SJ, Graham NAJ, Riegl BM (2008) Predictability of reef fish diversity and abundance using remote sensing data in Diego Garcia (Chagos Archipelago). Coral Reefs 27:167–178

[16] Purkis SJ, Kohler KE, Riegl BM, Rohmann SO (2007) The statistics of natural shapes in modern coral reef landscapes. Journal of Geology 115:493–508

[15] Myint SW, Wentz L, Purkis SJ (2007) Employing Spatial Metrics in Urban Land-use/Land-cover Mapping: Comparing the Getis and Geary Indices. Photogrammetric Engineering & Remote Sensing. 73:1403-1415 *AAG REMOTE SENSING SPECIALITY GROUP 2007 AWARD WINNER*

[14] Papastamatiou YP, Purkis SJ, Holland KN (2007) Measurements of gastric pH and motility in free swimming blacktip reef sharks, *Carcharhinus melanopterus*: implications for the evolution of gastric digestion in carnivorous vertebrates. Journal of Experimental Biology 345:129-140

[13] Riegl BM, Halfar J, Purkis SJ, Godinez-Orta L (2007) Sedimentary facies of the eastern Pacific's northernmost reef-like setting (Cabo Pulmo, Mexico). Marine Geology 236:61-77

[12] Purkis SJ (2006) Fractal patterns of coral communities: evidence from remote sensing. Proceedings of the 10th International Coral reef Symposium, Okinawa, Japan. July 2004, p. 1753-1762

[11] Riegl B, Purkis SJ, Kohler K, Dodge RE (2006) Spatial patterns in Arabian Gulf coral assemblages (Jebel Ali, Dubai, U.A.E.) in response to temperature-forcing. Proceedings of the 10th International Coral reef Symposium, Okinawa, Japan. July 2004, p. 683-687

[10] *Hernández-Cruz LR*, Purkis SJ, Riegl BM (2006) Documenting decadal spatial changes in seagrass and *Acropora palmata* cover by aerial photography analysis in Vieques, Puerto Rico: 1937–2000. Bulletin of Marine Science 79(2):401–414

[9] Purkis SJ, Myint S, Riegl B (2006) Enhanced detection of the coral *Acropora cervicornis* from satellite imagery using a textural operator. Remote Sensing of Environment 101:82-94

[8] Riegl B, *Moyer RP*, Morris LJ, Virnstein RW, Purkis SJ (2005) Distribution and seasonal biomass of drift macroalgae in the Indian River Lagoon (Florida, USA) estimated with acoustic seafloor classification (QTCView, Echoplus). Journal of Experimental Marine Biology and Ecology 326:89-104

[7] *Keck J*, Houston RS, Purkis SJ, Riegl B (2005) Unexpectedly high cover of *Acropora cervicornis* on offshore reefs in Roatán (Honduras). Coral Reefs 24:509

[6] Purkis SJ, Riegl B, Andréfouët S (2005) Remote sensing of geomorphology and facies patterns on a modern carbonate ramp (Arabian Gulf, Dubai, U.A.E.). Journal of Sedimentary Research 75:861-876

[5] Purkis SJ (2005) A "reef-up" approach to classifying coral habitats from IKONOS imagery. IEEE Transactions on Geoscience and Remote Sensing 43:1375-1390

[4] Purkis SJ, Riegl B (2005) Spatial and temporal dynamics of Arabian Gulf coral assemblages quantified from remote-sensing and *in situ* monitoring data. Marine Ecology Progress Series 287:99-113

[3] Riegl B, Purkis SJ (2005) Detection of shallow subtidal corals from IKONOS satellite and QTC View (50, 200 kHz) single-beam sonar data (Arabian Gulf; Dubai, UAE). Remote Sensing of Environment 95:96-114

[2] Purkis SJ, Pasterkamp R (2004) Integrating *in situ* reef-top reflectance spectra with Landsat TM imagery to aid shallow-tropical benthic habitat mapping. Coral Reefs 23:5-20

[1] Purkis SJ, Kenter JAM, Oikonomou EK, Robinson IS (2002) High-resolution ground verification, cluster analysis and optical model of reef substrate coverage on Landsat TM imagery (Red Sea, Egypt). International Journal of Remote Sensing 23:1677-1698

Books

[3] Goodman JA, Purkis SJ, Phinn SR (*Eds*) (2013) Coral Reef Remote Sensing: A Guide for Mapping, Monitoring and Management. Springer, 436pp, ISBN-10: 9048192919

Reviews: "This remarkable book, *Coral Reef Remote Sensing: A Guide for Mapping, Monitoring and Management*, for the first time documents the full range of remote sensing systems, methodologies and measurement capabilities essential to understanding more fully the status and changes over time of coral reefs globally. Such information is essential and provides the foundation for policy development and for implementing management strategies to protect these critically endangered ecosystems. ... Included here is an overview of technologies for reef mapping, technical information useful for scientists and other research and policy development experts, ideas for application of remote sensing to resolve questions, and thoughts about future remote sensing technologies and their applications. I wholeheartedly recommend this book to scientists, students, managers, remote sensing specialists and anyone who would like to be inspired by the ingenious new ways that have been developed and are being applied to solve one of the world's greatest challenges: how to take care of the ocean that takes care of us.." **SYLVIA A. EARLE**, NATIONAL GEOGRAPHIC EXPLORER IN RESIDENCE; FOUNDER, MISSION BLUE

[2] Riegl BM, Purkis SJ (*Eds*) (2012) Coral Reefs of the Gulf: Adaptation to Climatic Extremes. Springer, 389pp, ISBN 978-94-007-3007-6 (hard cover)

Reviews: "Coral Reefs of the Gulf provides an important baseline on reef geomorphology and ecosystems in an area under pressure from various developments (oil, gas and resorts). … this book is an excellent ambassador for monitoring and protecting these important natural ecosystems". (**JAMES CRABBE**, THE BIOLOGIST, VOL. 59 (5), DECEMBER, 2012)

[1] Purkis SJ, Klemas V (2011) Remote Sensing and Global Environmental Change. Wiley-Blackwell, Oxford, 368pp, ISBN 978-1-4051-8225-6 (pbk.)

Reviews: "The book covers in a very comprehensive way many aspects of remote sensing providing a global view of the physical background, models, a variety of sensors and several applications. Culturally, the book provides a clear picture of the remote sensing as a three-leg problem:

measurements, models and inversion. The reader is guided into a tour of the most challenging services within GMES and GOESS programs. Authors are able to teach and fascinate at the same time." **MAURIZIO MIGLIACCIO**, UNIVERSITÀ DI NAPOLI PARTHENOPE, ITALY

"This book is written by two internationally leading scholars who have over 50 years combined experience in remote sensing and Earth sciences. It examines how the modern concepts, technologies and methods in remote sensing can be effectively used to solve problems relevant to a wide range of topics in global environmental change studies. And it has a companion site that contains all the figures and tables included in the book. This book is invaluable for undergraduate and graduate teaching, while providing a good overview of the technology to a manager or scientist." **XIAOJUN YANG**, DEPT. OF GEOGRAPHY, FLORIDA STATE UNIVERSITY, USA