**S3. List of papers included in the literature synthesis**

Ahtiainen H, Artell J, Czajkowski M, Hasler B, Hasselström L, Hyytiäinen K, et al. Public preferences regarding use and condition of the Baltic Sea—An international comparison informing marine policy. Mar Policy. 2013;42: 20–30. doi:http://dx.doi.org/10.1016/j.marpol.2013.01.011

Anthony A, Atwood J, August P V, Byron C, Cobb S, Foster C, et al. Coastal lagoons and climate change: ecological and social ramifications in U.S. Atlantic and Gulf coast ecosystems. Ecol Soc. 2009;14: 8.

Armstrong CW, Foley NS, Kahui V, Grehan A. Cold water coral reef management from an ecosystem service perspective. Mar Policy. Elsevier Ltd; 2014;50: 126–134. doi:10.1016/j.marpol.2014.05.016

Barnes-Mauthe M, Oleson KLL, Brander LM, Zafindrasilivonona B, Oliver TA, van Beukering P. Social capital as an ecosystem service: Evidence from a locally managed marine area. Ecosyst Serv. 2014; doi:http://dx.doi.org/10.1016/j.ecoser.2014.10.009

Baulcomb C., Fletcher R. d, Lewis A. e, Akoglu E., Robinson L., von Almen A. f, et al. A pathway to identifying and valuing cultural ecosystem services: An application to marine food webs. Ecosyst Serv. Elsevier; 2015;11: 128–139. doi:10.1016/j.ecoser.2014.10.013

Beaumont NJ, Austen MC, Mangi SC, Townsend M. Economic valuation for the conservation of marine biodiversity. Mar Pollut Bull. 2008;56: 386–396. doi:http://dx.doi.org/10.1016/j.marpolbul.2007.11.013

Brandt P, Abson DJ, DellaSala DA, Feller R, von Wehrden H. Multifunctionality and biodiversity: Ecosystem services in temperate rainforests of the Pacific Northwest, USA. Biol Conserv. 2014;169: 362–371. doi:10.1016/j.biocon.2013.12.003

Burkhard B., Gee K. Establishing the resilience of a coastal-marine social-ecological system to the installation of offshore wind farms. Ecol Soc. 2012;17. doi:10.5751/ES-05207-170432

Butler JR a, Tawake A, Skewes T, Tawake L, Mcgrath V. Integrating Traditional Ecological Knowledge and Fisheries Management in the Torres Strait , Australia : the Catalytic Role of Turtles and Dugong. Ecol Soc. 2012;17: 1–19. doi:10.5751/ES-05165-170434

Carollo C., Allee RJ., Yoskowitz DW. Linking the Coastal and Marine Ecological Classification Standard (CMECS) to ecosystem services: An application to the US Gulf of Mexico. Int J Biodivers Sci Ecosyst Serv Manag. 2013;9: 249–256. doi:10.1080/21513732.2013.811701

Chan KMA, Guerry AD, Balvanera P, Klain S, Satterfield T, Basurto X, et al. Where are Cultural and Social in Ecosystem Services? A Framework for Constructive Engagement. Bioscience. 2012;62: 744–756. doi:10.1525/bio.2012.62.8.7

Chan KM, Ruckelshaus M. Characterizing changes in marine ecosystem services. F1000 Biol Rep. 2010;2: 54. doi:10.3410/B2-54

Chung MG, Kang H, Choi S-U. Assessment of coastal ecosystem services for conservation strategies in South Korea. PLoS One. 2015;10. doi:10.1371/journal.pone.0133856

Comberti C, Thornton TF, Wylliede Echeverria V, Patterson T. Ecosystem services or services to ecosystems? Valuing cultivation and reciprocal relationships between humans and ecosystems. Glob Environ Chang. 2015;34: 247–262. doi:10.1016/j.gloenvcha.2015.07.007

Cooley SR., Kite-Powell HL., Doney SC. Ocean acidification’s potential to alter global marine ecosystem services. Oceanography. 2009;22: 172–181. doi:10.5670/oceanog.2009.106

Coscieme L. Cultural ecosystem services: The inspirational value of ecosystems in popular music. Ecosyst Serv. 2015;16: 121–124. doi:http://dx.doi.org/10.1016/j.ecoser.2015.10.024

Cullen-Unsworth LC, Nordlund LM, Paddock J, Baker S, McKenzie LJ, Unsworth RKF. Seagrass meadows globally as a coupled social-ecological system: implications for human wellbeing. Mar Pollut Bull. Elsevier Ltd; 2014;83: 387–97. doi:10.1016/j.marpolbul.2013.06.001

Davis J, Kidd IM. Identifying Major Stressors: The Essential Precursor to Restoring Cultural Ecosystem Services in a Degraded Estuary. ESTUARIES AND COASTS. 2012;35: 1007–1017. doi:10.1007/s12237-012-9498-7

Eicken H, Lovecraft AL, Druckenmiller ML. Sea-Ice System Services: A Framework to Help Identify and Meet Information Needs Relevant for Observing Networks. ARCTIC. 2009;62: 119–136. doi:10.14430/arctic126

Everard M, Appleby T. Ecosystem services and the common law: Evaluating the full scale of damages. Environ Law Manag. 2008;20: 325–339.

Everard M, Jones L, Watts B. Have we neglected the societal importance of sand dunes? An ecosystem services perspective. Aquat Conserv Mar Freshw Ecosyst. John Wiley & Sons, Ltd.; 2010;20: 476–487. doi:10.1002/aqc.1114

Faggi A, Breuste J, Madanes N, Gropper C, Perelman P. Water as an appreciated feature in the landscape: A comparison of residents’ and visitors’ preferences in buenos aires. J Clean Prod. Elsevier Ltd; 2013;60: 182–187. doi:10.1016/j.jclepro.2011.09.009

Fletcher R, Baulcomb C, Hall C, Hussain S. Revealing marine cultural ecosystem services in the Black Sea. Mar Policy. Elsevier Ltd; 2014;50: 151–161. doi:10.1016/j.marpol.2014.05.001

Ford H, Garbutt A, Jones DL, Jones L. Impacts of grazing abandonment on ecosystem service provision: Coastal grassland as a model system. Agric Ecosyst Environ. 2012;162: 108–115. doi:http://dx.doi.org/10.1016/j.agee.2012.09.003

Gee K, Burkhard B. Cultural ecosystem services in the context of offshore wind farming: A case study from the west coast of Schleswig-Holstein. Ecol Complex. Elsevier B.V.; 2010;7: 349–358. doi:10.1016/j.ecocom.2010.02.008

Gould RK, Klain SC, Ardoin NM, Satterfield T, Woodside U, Hannahs N, et al. A protocol for eliciting nonmaterial values through a cultural ecosystem services frame. Conserv Biol. 2015;29: 575–586. doi:10.1111/cobi.12407

Graham WM, Gelcich S, Robinson KL, Duarte CM, Brotz L, Purcell JE, et al. Linking human well-being and jellyfish: ecosystem services, impacts, and societal responses. Front Ecol Environ. Ecological Society of America; 2014;12: 515–523. doi:10.1890/130298

Grant SM, Hill SL, Trathan PN, Murphy EJ. Ecosystem services of the Southern Ocean: Trade-offs in decision-making. Antarct Sci. 2013;25: 603–617. doi:10.1017/S0954102013000308

de Groot R. What Are Ecosystem Services? In: Wolanski E, McLusky D, editors. Treatise on Estuarine and Coastal Science. Waltham: Elsevier; 2011. pp. 15–34. doi:10.1016/B978-0-12-374711-2.01202-X

Hashimoto S, Nakamura S, Saito O, Kohsaka R, Kamiyama C, Tomiyoshi M, et al. Mapping and characterizing ecosystem services of social–ecological production landscapes: case study of Noto, Japan. Sustain Sci. Springer-Verlag Tokyo; 2014; doi:10.1007/s11625-014-0285-1

Hicks CC. How do we value our reefs? Risks and tradeoffs across scales in “biomass-based” economies. Coast Manag. 2011;39: 358–376. doi:10.1080/08920753.2011.589219

Holt AR., Godbold JA., White PCL., Slater A-M., Pereira EG., Solan M. Mismatches between legislative frameworks and benefits restrict the implementation of the Ecosystem Approach in coastal environments. Mar Ecol Prog Ser. 2011;434: 213–228. doi:10.3354/meps09260

Hynes S., Norton D., Hanley N. Adjusting for Cultural Differences in International Benefit Transfer. Environ Resour Econ. 2013;56: 499–519. doi:10.1007/s10640-012-9572-4

Ibret BU, Aydinozu D, Bastemur C. A geographic study on the effects of coastal tourism on sustainable development: Coastal tourism in Cide. Int J Sustain Dev World Ecol. 2013;20: 134–141. doi:10.1080/13504509.2012.743195

Jobstvogt N, Watson V, Kenter JO. Looking below the surface: The cultural ecosystem service values of UK marine protected areas (MPAs). Ecosyst Serv. 2014;10: 97–110. doi:10.1016/j.ecoser.2014.09.006

Jordan SJ., O’Higgins T., Dittmar JA. Ecosystem Services of Coastal Habitats and Fisheries: Multiscale Ecological and Economic Models in Support of Ecosystem-Based Management. Mar Coast Fish. 2012;4: 573–586. doi:10.1080/19425120.2012.703162

Klain SC, Chan KMA. Navigating coastal values: Participatory mapping of ecosystem services for spatial planning. Ecol Econ. 2012;82: 104–113. doi:10.1016/j.ecolecon.2012.07.008

Klain SC, Satterfield TA, Chan KMA. What matters and why? Ecosystem services and their bundled qualities. Ecol Econ. 2014;107: 310–320. doi:10.1016/j.ecolecon.2014.09.003

Li M, Yang W, Sun T. Effects of Freshwater Releases on the Delivery of Ecosystem Services in Coastal Wetlands of the Yellow River Delta Using an Improved Input-State-Output Approach. Wetlands. Kluwer Academic Publishers; 2015; doi:10.1007/s13157-015-0630-x

Liquete C, Piroddi C, Drakou EG, Gurney L, Katsanevakis S, Charef A, et al. Current Status and Future Prospects for the Assessment of Marine and Coastal Ecosystem Services: A Systematic Review. Bograd SJ, editor. PLoS One. 2013;8: e67737. doi:10.1371/journal.pone.0067737

Loomis DK, Paterson SK. Human dimensions indicators of coastal ecosystem services: A hierarchical perspective. Ecol Indic. Elsevier; 2014;44: 63–68. doi:10.1016/j.ecolind.2013.12.022

Mangi SC. b. The impact of offshore wind farms on marine ecosystems: A review taking an ecosystem services perspective. Proc IEEE. 2013;101: 999–1009. doi:10.1109/JPROC.2012.2232251

Martínez Pastur G, Peri PL, Lencinas M V, García-Llorente M, Martín-López B. Spatial patterns of cultural ecosystem services provision in Southern Patagonia. Landsc Ecol. 2015; doi:10.1007/s10980-015-0254-9

Moberg F., Folke C. b. Ecological goods and services of coral reef ecosystems. Ecol Econ. 1999;29: 215–233. doi:10.1016/S0921-8009(99)00009-9

Oleson KLL, Barnes M, Brander LM, Oliver TA, van Beek I, Zafindrasilivonona B, et al. Cultural bequest values for ecosystem service flows among indigenous fishers: A discrete choice experiment validated with mixed methods. Ecol Econ. 2015;114: 104–116. doi:http://dx.doi.org/10.1016/j.ecolecon.2015.02.028

de Oliveira LEC, Berkes F. What value São Pedro’s procession? Ecosystem services from local people’s perceptions. Ecol Econ. Elsevier B.V.; 2014;107: 114–121. doi:10.1016/j.ecolecon.2014.08.008

Outeiro L, Häussermann V, Viddi F, Hucke-Gaete R, Försterra G, Oyarzo H, et al. Using ecosystem services mapping for marine spatial planning in southern Chile under scenario assessment. Ecosyst Serv. Elsevier; 2015;16: 341–353. doi:10.1016/j.ecoser.2015.03.004

Outeiro L, Villasante S. Linking salmon aquaculture synergies and trade-offs on ecosystem services to human wellbeing constituents. Ambio. 2013;42: 1022–1036. doi:10.1007/s13280-013-0457-8

Outeiro L, Gajardo C, Oyarzo H, Ther F, Cornejo P, Villasante S, et al. Framing local ecological knowledge to value marine ecosystem services for the customary sea tenure of aboriginal communities in southern Chile. Ecosyst Serv. Elsevier; 2015;16: 354–364. doi:10.1016/j.ecoser.2015.04.004

Papathanasopoulou E, Beaumont N, Hooper T, Nunes J, Queirós AM. Energy systems and their impacts on marine ecosystem services. Renew Sustain Energy Rev. 2015;52: 917–926. doi:10.1016/j.rser.2015.07.150

Pike K, Wright P, Wink B, Fletcher S. The assessment of cultural ecosystem services in the marine environment using Q methodology. J Coast Conserv. Kluwer Academic Publishers; 2014; doi:10.1007/s11852-014-0350-z

Pleasant MM, Gray SA, Lepczyk C, Fernandes A, Hunter N, Ford D. Managing cultural ecosystem services. Ecosyst Serv. Elsevier; 2014;8: 141–147. doi:10.1016/j.ecoser.2014.03.006

Quilliam RS, Kinzelman J, Brunner J, Oliver DM. Resolving conflicts in public health protection and ecosystem service provision at designated bathing waters. J Environ Manage. 2015;161: 237–242. doi:http://dx.doi.org/10.1016/j.jenvman.2015.07.017

Quintas-Soriano C, Martín-López B, Santos-Martín F, Loureiro M, Montes C, Benayas J, et al. Ecosystem services values in Spain: A meta-analysis. Environ Sci Policy. Elsevier; 2016;55: 186–195.

Rocha J., Yletyinen J. b, Biggs R. c, Blenckner T. b, Peterson G. Marine Regime shifts: Drivers and impacts on Ecosystems services. Philos Trans R Soc B Biol Sci. Royal Society of London; 2015;370: 1–12. doi:10.1098/rstb.2013.0273

Garcia Rodrigues JM. Cultural services in aquatic ecosystems. Ecosystem Services and River Basin Ecohydrology. 2015. doi:10.1007/978-94-017-9846-4\_3

Rönnbäck P., Kautsky N., Pihl L., Troell M., Söderqvist T., Wennhage H. Ecosystem goods and services from Swedish coastal habitats: Identification, valuation, and implications of ecosystem shifts. Ambio. 2007;36: 534–544. doi:10.1579/0044-7447(2007)36[534:EGASFS]2.0.CO;2

Rova S., Pranovi F., Müller F. Provision of ecosystem services in the lagoon of Venice (Italy): An initial spatial assessment. Ecohydrol Hydrobiol. Elsevier; 2015;15: 13–25. doi:10.1016/j.ecohyd.2014.12.001

Ruiz-Frau A, Hinz H, Edwards-Jones G, Kaiser MJ. Spatially explicit economic assessment of cultural ecosystem services: Non-extractive recreational uses of the coastal environment related to marine biodiversity. Mar Policy. 2013;38: 90–98. doi:http://dx.doi.org/10.1016/j.marpol.2012.05.023

Satterfield T, Gregory R, Klain S, Roberts M, Chan KM. Culture, intangibles and metrics in environmental management. J Environ Manage. 2013;117: 103–114. doi:10.1016/j.jenvman.2012.11.033

Shen C, Zheng W, Shi H, Ding D, Wang Z. Assessment and regulation of ocean health based on ecosystem services: Case study in the Laizhou Bay, China. Acta Oceanol Sin. 2015;34: 61–66. doi:10.1007/s13131-015-0777-6

Sousa LP., Lillebø AI., Gooch GD., Soares JA., Alves FL. Incorporation of local knowledge in the identification of Ria de Aveiro lagoon ecosystem services (Portugal). J Coast Res. 2013; 1051–1056. doi:10.2112/SI65-178

Soy-Massoni E, Langemeyer J, Varga D, Sáez M, Pintó J. The importance of ecosystem services in coastal agricultural landscapes: Case study from the Costa Brava, Catalonia. Ecosyst Serv. 2016;17: 43–52. doi:http://dx.doi.org/10.1016/j.ecoser.2015.11.004

Tengberg A, Fredholm S, Eliasson I, Knez I, Saltzman K, Wetterberg O. Cultural ecosystem services provided by landscapes: Assessment of heritage values and identity. Ecosyst Serv. Elsevier; 2012;2: 14–26. doi:10.1016/j.ecoser.2012.07.006

Thiagarajah J, Wong SKM, Richards DR, Friess DA. Historical and contemporary cultural ecosystem service values in the rapidly urbanizing city state of Singapore. Ambio. 2015;44: 666–677. doi:10.1007/s13280-015-0647-7

Thurber AR, Sweetman AK, Narayanaswamy BE, Jones DOB, Ingels J, Hansman RL. Ecosystem function and services provided by the deep sea. Biogeosciences. Copernicus GmbH; 2014;11: 3941–3963. doi:10.5194/bg-11-3941-2014

Turner KG, Odgaard MV, Bøcher PK, Dalgaard T, Svenning J-C. Bundling ecosystem services in Denmark: Trade-offs and synergies in a cultural landscape. Landsc Urban Plan. Elsevier; 2014;125: 89–104. doi:10.1016/j.landurbplan.2014.02.007

Urquhart J, Acott T. A Sense of Place in Cultural Ecosystem Services: The Case of Cornish Fishing Communities. Soc Nat Resour. 2014;27: 3–19. doi:10.1080/08941920.2013.820811

Vaissière A-C., Levrel H., Hily C., Le Guyader D. Selecting ecological indicators to compare maintenance costs related to the compensation of damaged ecosystem services. Ecol Indic. 2013;29: 255–269. doi:10.1016/j.ecolind.2013.01.003

Wakita K, Shen Z, Oishi T, Yagi N, Kurokura H, Furuya K. Human utility of marine ecosystem services and behavioural intentions for marine conservation in Japan. Mar Policy. 2014;46: 53–60. doi:10.1016/j.marpol.2013.12.015

Wang Q, Song J, Zhou J, Zhao W, Liu H, Tang X. Temporal Evolution of the Yellow Sea Ecosystem Services (1980–2010). Heliyon. Elsevier Ltd; 2016;2: e00084. doi:10.1016/j.heliyon.2016.e00084

Willis C. The contribution of cultural ecosystem services to understanding the tourism–nature–wellbeing nexus. J Outdoor Recreat Tour. 2015;10: 38–43. doi:http://dx.doi.org/10.1016/j.jort.2015.06.002