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International Environmental Law and Sea Turtles: Anatomy of the Legal Framework and Trade of Sea Turtles in the Lesser Antilles

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Abstract

Of the seven extant species of sea turtles, five navigate the waters of the Caribbean Sea surrounding the Lesser Antilles. As migratory species at all life stages, sea turtles need a coherent and strong legal framework in order to ensure the survival of the species for present and future generations. In light of the ongoing Holocene mass extinction crisis, the Intergovernmental Platform on Biodiversity and Ecosystem Services (IPBES) conducted a comprehensive global assessment which presented alarming findings of unprecedented decline in global ecosystems and of rapid acceleration in extinction rates that threatens one million species. The current legal framework of International Treaties implemented to protect these fragile species is fragmented and often ineffective due to deficient implementation and enforcement. Public Health risks linked to the consumption of sea turtle parts and derivatives are also discussed in this Article. Finally, this Article offers recommendations for effectively monitoring sea turtle fisheries as to enhance an evolution toward more sustainable activities.

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1. Introduction

Of the seven extant species of sea turtles, five navigate the waters of the Caribbean Sea surrounding the Lesser Antilles. These species—all of whom are listed as Vulnerable, Endangered, or Critically Endangered and whose populations are continuously decreasing according to IUCN's Red List of Endangered Species—include *Chelonia mydas* (Green turtle), *Eretmochelys imbricata* (Hawksbill turtle), *Dermochelys coriacea* (Leatherback turtle), *Caretta caretta* (Loggerhead turtle), and *Lepidochelys olivacea* (Olive Ridley turtle).¹ Figure 1 shows the geographical location of the Lesser Antilles within the Americas; Figure 2 shows the islands of the Lesser Antilles.

¹See IUCN Red List of Threatened Species, IUCN, <https://www.iucnredlist.org/search> (enter genus and species or common name into search field).



Figure 1: Location of the Lesser Antilles within the Americas.
Satellite image credit NASA. See at <https://www.jpl.nasa.gov/images/earth/20161208/earth20161208.jpg>.



Figure 2: The Caribbean Islands constituting the Lesser Antilles.

Satellite image credit Nasa. See at https://commons.wikimedia.org/wiki/File:MeerengeNASA_World_Wind_Globe_6.jpg.

All five species are in the order *Testudines* and, except for the Leatherback, all are in the family *Cheloniidae*. The origin of these ancient creatures goes back to the Jurassic Period, 150 million years ago. Except for the polar regions, they are present in all oceans and are generally found in the waters near the continental shelf.

Little is known of the first few years of sea turtles' lives, called the “lost years,” because at this early life stage, hatchlings are found in open waters where studying them is difficult and expensive. It is estimated that one out of a thousand hatchlings will actually become an adult sea turtle able to perpetuate the species. Hatchlings and younger sea turtles are thought to float in giant mats of sargassum seaweed to conserve energy. They may drift with the currents of the Gulf Stream in the Atlantic Ocean, for instance, using the North Atlantic Subtropical Gyre. Once they reach sexual maturity at around 20-30 years, sea turtles can migrate thousands of miles to reach breeding sites. After mating at sea, female sea turtles return to land to lay their eggs on sandy beaches.

The life span of sea turtles is estimated to be 80–100 years. Their diet varies from jellyfishes for Leatherbacks, to seagrasses for Green turtles, to hard shell preys (like conchs or lobsters) for Loggerheads, to a varied, mostly carnivorous diet (with jellyfishes, snails, crabs, shrimps, and occasionally seaweed and algae) for Olive Ridley turtles, to corals and sponges for Hawksbills. Because sea turtles are great migrators at all life stages,² a coherent and strong legal framework is needed to ensure their species' survival for present and future generations.³ Adjacency and ecological connectivity of migratory species are essential to understand for sea turtles' conservation and management. The Ocean's resources transcend jurisdictional boundaries and require management and conservation measures to be coherent with the movements and distributions of the managed resource across jurisdictional boundaries.⁴ Figure 3 presents the migratory routes made between 2013 and 2017 by ten endangered Green sea turtles which were satellite-tagged in Martinique. Figure 4 illustrates the migratory routes taken between 2015 and 2016 of eleven critically endangered Hawksbill turtles, also satellite-tagged in Martinique.

²See Philippine Chambault et al., *Connecting Paths Between Juvenile and Adult Habitats in the Atlantic Green Turtle Using Genetics and Satellite Tracking*, 8 *ECOLOGY & EVOLUTION* 12790 (2018); see also Manon Nivière et al., *Identification of Marine Key Areas Across the Caribbean to Ensure the Conservation of the Critically Endangered Hawksbill Turtle*, 223 *BIOLOGICAL CONSERVATION* 170 (2018).

³See IAC Secretariat, *Inter-American Convention for the Prot. and Conservation of Sea Turtles (IAC), Rep. of the Reg'l Workshop on the Hawksbill Turtle in the Wider Caribbean and Western Atlantic* (Sept. 2009), http://www.iacseaturtle.org/eng-docs/publicaciones/Hawksbill_Report_Final_ENG.pdf.

⁴See Dunn, D.C. et al. *POLICY BRIEF Adjacency: How legal precedent, ecological connectivity, and Traditional Knowledge inform our understanding of proximity* at https://www.un.org/depts/los/biodiversity/prepcom_files/BBNJ_Policy_brief_adjacency.pdf (last visited 27 Dec. 2020).

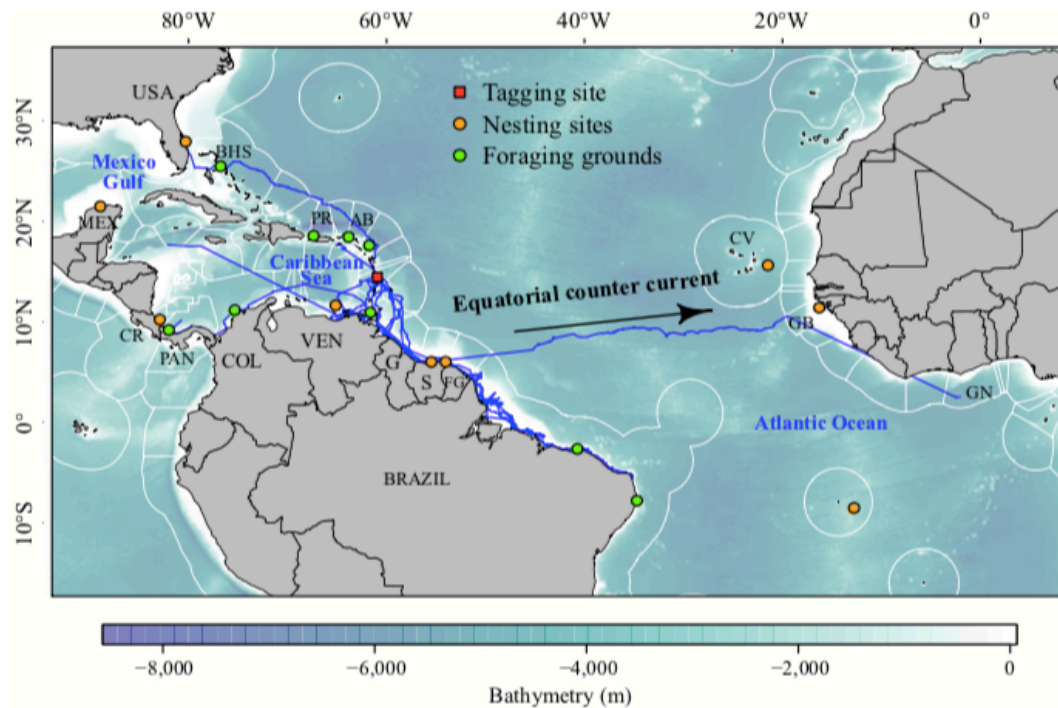


Figure 3: Satellite tracks of ten juvenile green turtles tagged in Martinique from 2013 to 2017. Tracks are related to known habitats of adult green turtles across the Caribbean-Atlantic region, that is, nesting sites (in orange) and foraging grounds (in green). The white contours refer to the Economic Exclusive Zones: AB: Antigua and Barbuda; BHS: the Bahamas; COL: Colombia; CR: Costa Rica; FG: French Guyana; G: Guyana; CV: Cape Verde; GB: Guinea-Bissau; GN: Ghana; MEX: Mexico; PAN: Panama; PR: Puerto Rico; S: Suriname; USA: United States of America; VEN: Venezuela. The bathymetry was extracted from GEBCO (30-arc-second 1 km grid).
Reference 2 of this study; Chambaut P., de Thoisy B, Huguin M, et al., Connecting paths between juvenile and adult habitats in the Atlantic green turtle using genetics and satellite tracking, 8 Ecol Evol. 2018;00:127901–1280213 (2018).

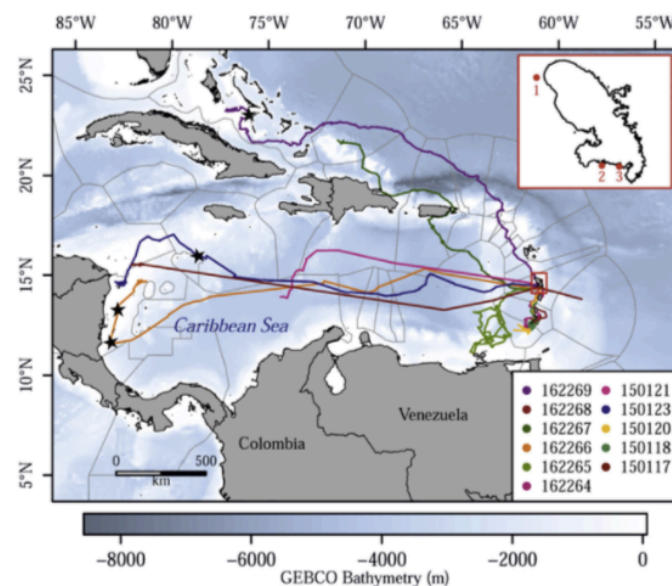


Figure 4: Post-nesting satellite tracks of eleven critically endangered hawksbill turtles from Martinique (red rectangle) in 2015 and 2016. The three tagging sites are presented in the up right of the figure (Prêcheur (1), Diamant (2) and Sainte Luce (3)). Hawksbill turtles tracks show their migratory routes cross several Economic Exclusive Zones of the Caribbean Sea and Area Beyond National Jurisdictions ABNJ.
Footnote 2 of this study; Manon Nivière, Philippine Chambaut, Thierry Pérez et al., Identification of marine key areas across the Caribbean to ensure the conservation of the critically endangered hawksbill turtle, 223 Biological Conservation , 170-180 (2018).

The Lesser Antilles consist of eight independent nations—Antigua and Barbuda, Barbados, Dominica, Grenada, St. Lucia, St. Kitts and Nevis, St. Vincent and the Grenadines, and Trinidad and Tobago—and additional non-sovereign states that are depen-

dent on, or politically affiliated with, overseas sovereign states. Guadeloupe, Martinique, St. Martin, and St. Barthelemy are French territories; Anguilla, the British Virgin Islands, and Montserrat are Overseas Territories of the United Kingdom; Sint Maarten, Saba, Sint Eustatius (Statia), Aruba, Curacao and Bonaire are constituent countries of the Netherlands;⁵ and the Islands of St. Croix, St. John, and St. Thomas are organized, unincorporated territories of the United States.

In this Article, “sea turtle fishing” is defined as the fishing activity that consists of willfully extracting sea turtles from the sea in order to exploit them.

2. Comparative Study of Hard Law Instruments Concerning Sea Turtles and their Implementation in the Lesser Antilles.

Since the inception of international environmental law, sea turtle species have been listed in the Annexes and Appendices of hard law instruments as species requiring special protection measures. Hard Law enforcing the international regulation of sea turtle conservation comprises several Multilateral Environmental Agreements (MEAs), beginning with the Convention on International Trade of Endangered Species of Wild Fauna and Flora (CITES) of 1973.⁶ CITES has listed all species of sea turtles in its Appendix I and international trade in sea turtles for commercial purposes has been prohib-

⁵The Netherlands Antilles changed status in 2010: Curaçao and St Maarten became autonomous countries within the Kingdom of the Netherlands, while Bonaire, St. Eustatius (Statia), and Saba (the Caribbean Netherlands)—though special municipalities—remain part of the Netherlands. The government of the Netherlands took over the task of public administration from the Government of the Netherlands Antilles, meaning the Kingdom of the Netherlands now consists of the Netherlands, Aruba, Curaçao, and St. Maarten. See *Caribbean Parts of the Kingdom*, GOVERNMENT OF THE NETHERLANDS, <https://www.government.nl/topics/caribbean-parts-of-the-kingdom> (last visited Dec. 5, 2020). In the Netherlands, The Nature Conservation Act governs environmental matters. See *Legislation Protecting Nature in the Netherlands*, GOVERNMENT OF THE NETHERLANDS, <https://www.government.nl/topics/nature-and-biodiversity/legislation-protecting-nature-in-the-netherlands> (last visited Dec. 5, 2020).

⁶March 3, 1973, 993 U.N.T.S. 243, entered into force July 1 1975, <https://cites.org/sites/default/files/eng/disc/CITES-Convention-EN.pdf>.

ited. The introduction from the sea of any specimen of a species included in Appendix I for commercial purposes is prohibited under CITES Article III paragraph 5.⁷

The Bern Convention lists all species of sea turtles in Appendix II, and Article 6 provides that: “Each Contracting Party shall take appropriate and necessary legislative and administrative measures to ensure the special protection of the wild fauna species specified in Appendix II. The following will in particular be prohibited for these species: [] all forms of deliberate capture and keeping and deliberate killing”⁸ It is unclear whether Contracting Parties shall apply the Bern Convention to overseas territories.⁹

The Convention on Migratory Species (CMS) of 1979, also called the Bonn Convention, lists all species of sea turtles on Appendix I. *Chelonia spp.* and *Der-mochelys spp.* are also listed on Appendix II. Article III of the CMS states: “Parties that are Range States of a migratory species listed in Appendix I shall prohibit the taking of

⁷See CITES Article III para. 5, <https://cites.org/eng/disc/text.php#I>. Introduction from the Sea is defined Article I paragraph (e) of the Convention as the “transportation into a State of specimens of any species which were taken in the marine environment not under the jurisdiction of any State”.

⁸Council of Europe, Convention on the Conservation of European Wildlife and Natural Habitats [hereinafter Bern Convention], 19.IX.1979, E.T.S. No. 104, <https://rm.coe.int/CoERMPublicCommonSearchServices/DisplayDCTMContent?documentId=0900001680078aff>. Parties to the Bern Convention may designate the territories to which the Convention shall apply. *Id.* art. 21.

⁹*Id.* On February 7, 2019, Iva Obretenova, Secretary of the Bern Convention, answered by email to the question whether the Bern Convention applies to the Oversea Territories of a European Contracting Party that “the Convention applies to the whole territory of the signatory Countries who have ratified the Convention unless a Party has submitted a reservation on the application of the Convention. For instance, the Convention does not apply to Greenland or to the Faroe Islands, as Denmark communicated reservations concerning the application of the Convention to these territories.” See COUNCIL OF EUROPE, *Reservations and Declarations for Treaty No.104 - Convention on the Conservation of European Wildlife and Natural Habitats, Declarations in Force as of Today*, https://www.coe.int/en/web/conventions/full-list/-/conventions/treaty/104/declarations?p_auth=JQT1tWX. Greenland is geographically included in the North American continent and Denmark has stated the Bern Convention does not apply to Greenland. France has communicated reservations concerning the Appendix II “Strictly protected fauna species” and concerning *Chelonia mydas* (those reservations are implemented in the French overseas territory of New Caledonia in the Pacific Ocean). The Government of the Netherlands has declared it approved the Bern Convention for the Kingdom in Europe. Article 21 of the Bern Convention defines how a contracting party can declare the territory or territories to which the Convention shall or shall not apply.

animals belonging to such species.” Sea turtle species listed on Appendix II shall also benefit from a priority status and cooperative measures provided by Article IV of the Convention on Migratory Species.¹⁰

The Specially Protected Areas and Wildlife Protocol of the Cartagena Convention (CAR-SPAW) of 1990 requires that each party to the Convention ensure that all sea turtle species present in the Lesser Antilles listed in Annex II receive “total protection and recovery.”¹¹ Furthermore, each party shall prohibit “the taking, possession or killing (including, to the extent possible, the incidental taking, possession or killing) or commercial trade in such species, their eggs, parts or products.”¹²

The Inter-American Convention for the Protection and Conservation of Sea Turtles (IAC) of 1997 ensures the protection, conservation, and recovery of sea turtle populations. Measures provided by Article IV of IAC include: “The prohibition of the intentional capture, retention or killing of, and domestic trade in, sea turtles, their eggs, parts or products.”¹³

Parties to the Ramsar Convention of 1971¹⁴ specifically called for the halt of poaching and of sea turtle fishing in Resolution XIII.24, which

¹⁰Convention on Migratory Species of Wild Animals art. IV(3), Jun. 23, 1979 [hereinafter CMS], https://observatoriop10.cepal.org/sites/default/files/documents/treaties/cms_eng.pdf.

¹¹Cartagena Convention, *Specially Protected Areas and Wildlife Protocol* art. 11(1) [hereinafter CAR-SPAW], adopted Jan. 18, 1990, <https://www.car-spaw-rac.org/IMG/pdf/spaw-protocol-en.pdf>.

¹²*Id.* The Convention is supported by three technical agreements or Protocols on Oil Spills, Specially Protected Areas and Wildlife (SPAW), and Land Based Sources of Marine Pollution (LBS). Caribbean Environment Programme, *Who We Are, Cartagena Convention*, <https://www.unenvironment.org/cep/who-we-are/cartagena-convention> (last visited Dec. 11, 2020).

¹³Inter-American Convention for the Protection and Conservation of Sea Turtles [hereinafter IAC]. art. IV(2)(a), 1994, <http://www.iacseaturtle.org/eng-docs/Texto-CIT-ENG.pdf>.

¹⁴Ramsar Convention on Wetlands of International Importance Especially as Waterfowl Habitat, Feb. 2, 1971, https://www.ramsar.org/sites/default/files/documents/library/current_convention_text_e.pdf.

ENCOURAGES Contracting Parties with marine turtle habitats to promote the wise use of these wetlands by working with local communities, relevant stakeholders and institutions to raise awareness of the importance of conserving marine turtles, their nests and their habitats, and to halt poaching and the exploitation of marine turtle products, including through, inter alia, fostering alternative sustainable livelihoods, including sustainable eco-tourism.¹⁵

The United Nations Convention on the Law of the Sea of 1982 (UNCLOS) provides that States are “Conscious that the problems of ocean space are closely interrelated and need to be considered as a whole ...”.¹⁶ UNCLOS Article 192 provides that “[s]tates have the obligation to protect and preserve the marine environment and its resources.”¹⁷ UNCLOS Article 61 paragraph 2 requires that:

The coastal State, taking into account the best scientific evidence available to it, shall ensure through proper conservation and management measures that the maintenance of the living resources in the exclusive economic zone is not endangered by over-exploitation. As appropriate, the coastal State and competent international organizations, whether subregional, regional or global, shall cooperate to this end.¹⁸

The United Nations Educational, Scientific and Cultural Organisation Convention Concerning the Protection of the World Cultural and Natural Heritage of 1972

¹⁵Ramsar Res XIII.24 (CoP13), *The Enhanced Conservation of Coastal Marine Turtle Habitats and the Designation of Key Areas as Ramsar Sites*, ¶ 21 (Oct. 29, 2018), www.ramsar.org/sites/default/files/documents/library/xiii.24_sea_turtles_e.pdf.

¹⁶United Nations Convention on the Law of the Sea, Preamble, Dec. 10, 1982, 1833 U.N.T.S. 397, https://www.un.org/depts/los/convention_agreements/texts/unclos/unclos_e.pdf.

¹⁷*Id.* art. 191.

¹⁸*Id.* art. 61.

(UNESCO Convention) Article 2 not only defines that “geological and physiographical formations and precisely delineated areas which constitute the habitat of threatened species of animals” shall be considered as Natural Heritage, but also that “natural features consisting of physical and biological formations or groups of such formations, which are of outstanding universal value from the aesthetic or scientific point of view” shall be considered as Natural Heritage of Mankind.¹⁹ The UNESCO Convention notes that “the cultural heritage and the natural heritage are increasingly threatened with destruction,” considers that “deterioration or disappearance of any item of the cultural or natural heritage constitutes a harmful impoverishment of the heritage of all the nations of the world” and provides for the enhanced international cooperation to ensure conservation measures of the Cultural and Natural Heritage of Mankind.²⁰

While tens of millions of sea turtles are estimated to have existed in the Wider Caribbean region before Columbus’s fleet arrived, after decades of over exploitation, it is estimated that only a few thousand individuals remain there today.²¹

Sea turtles have been specifically identified and included in appendices and annexes of MEAs—which have sought to ensure drastic protection measures for their survival—for forty-seven years. Appendix 1 provides an overview of the hard and soft law instruments signed and ratified by island sovereign states and overseas territories of sovereign states in the Lesser Antilles, while the corresponding national laws have also

¹⁹ UNESCO Convention art. 2, 823 U.N.T.S. 231, Nov. 16th 1972, <https://whc.unesco.org/archive/convention-en.pdf>.

²⁰*Id.* at preamble.

²¹Bryan Wallace, *How many Sea Turtles are there?*, XV SWOT STATE OF THE WORLD SEA TURTLES REPORT, 2020, at 41, https://static1.squarespace.com/static/5b80290bee1759a50e3a86b3/t/5e8ca4e3410a9c4efa5232e1/1586275587511/SWOT15_2020.pdf.

been referenced. In particular, CITES, the World Heritage Convention, and UNCLOS have unanimous approval amongst the Lesser Antilles community. Ramsar has been approved by all islands except Dominica, St. Kitts, Nevis, St. Vincent, and the Grenadines.

CITES was formally implemented in Anguilla in 2014. Montserrat implemented the Endangered Animals and Plants Ordinance of 2016, which includes sea turtle parts and derivatives in Appendix I, in 2016. Nonetheless, the 1987 Endangered Animals and Plants Act of the British Virgin Islands (BVI), which appears to still be in force, stipulates that the “export of shell, scales or claws [of sea turtles] is not prohibited if the objects are ‘cut to shape.’”²²

The CMS, CAR-SPAW, and IAC also provide for exemptions for traditional activities.²³ For example, CAR-SPAW has been signed and ratified by St. Lucia, which nonetheless has been allowing sea turtle fishing. It is unclear if Parties who allow sea turtle fishing rely on an exemption for traditional activities from the Multilateral Environmental Agreements they signed and ratified. Article 11(2) of the CAR-SPAW Protocol authorizes contracting Parties to adopt exemptions to the prohibitions prescribed for the protection and recovery of the species listed in Annexes I and II “for scientific, educational or management purposes necessary to ensure the survival of the species or to prevent significant damage to forests or crops,” as long as said exemption will not jeop-

²²Brendan J. Godley, Annette C. Broderick, Lisa M. Campbell, Sue Ranger & Peter B. Richardson, *Overview of Legislation Pertinent to Marine Turtle Harvest*, in AN ASSESSMENT OF THE STATUS AND EXPLOITATION OF MARINE TURTLES IN THE UK OVERSEAS TERRITORIES IN THE WIDER CARIBBEAN 16, 26 (2004), <http://www.seaturtle.org/mtrg/projects/tcot/finalreport/>. Although draft legislation was submitted to CITES Secretariat in 2016, consultation of the recent legislations implemented via the CITES website indicates that a national law complying with CITES has not entered into force in the British Virgin Islands as of July 2020. See CITES, *National Legislation Project, Updated Legislative Status Table*, https://cites.org/sites/default/files/LAC/Legislative_status_table_October_2020.pdf.

²³See CMS, *supra* note 10, art. III(5); CAR-SPAW, *supra* note 11, art. 14; IAC, *supra* note 11, art. IV(3) (a).

ardize the species.²⁴ A draft reporting document was proposed for adoption at SPAW CoP10 2019, to be submitted by interested Parties which must contain detailed information concerning the forbidden activity, including a detailed explanation of the way the forbidden activity may contribute to the survival of species or to prevent significant damage to forests, crops or the ecosystem.²⁵ The legal analysis and sample form has been restricted to Article 11(2) and does not concern exemptions provided by Article 14 of the CAR-SPAW Protocol for traditional activities.²⁶ However, the theory that a prohibited activity under CAR-SPAW can actually contribute to the survival of a species appears contradictory. The approval of an “exemption form” under CAR-SPAW Article 11 (2) could encourage the creation and implementation of new activities depleting natural resources, actually protected by that same Protocol. The United States has communicated a reservation to Article 11(2) of the CAR-SPAW Protocol upon its ratification.²⁷

This Article recommends sea turtle fishing continues to be a fully prohibited activity under Article 11(2) of the CAR-SPAW Protocol. The practice does not meet the listed exemption criteria of scientific, educational, nor management purposes contemplated, and it does not ensure the survival of the species. Furthermore, this Article rec-

²⁴CAR-SPAW, *supra* note 11, art. 11(2).

²⁵U.N.E.P. *Report of the Meeting*, UNEP(DEPI)/CAR IG.40/4 (Nov. 25, 2019), http://gefcrew.org/carrcu/18IGM/10SPAWCOP/Final_Report/CAR_IG.40.4-en.pdf.

²⁶U.N.E.P., *Guidance Document: Criteria and Process to Assess Exemptions Under Article 11(2) of the Specially Protected Areas and Wildlife Protocol (SPAW)*, UNEP(DEPI)/CAR IG.37/3.Rev1 (Feb. 28 2017), http://gefcrew.org/carrcu/18IGM/10SPAWCOP/Info-Docs/Guid_Doc-en.pdf; U.N.E.P.; *Reporting Format for Exemptions Under Article 11(2) of the Specially Protected Areas and Wildlife Protocol (SPAW)*, UNEP(DEPI)/CAR WG.38/3.Rev1 (March 17, 2017), <https://wedocs.unep.org/bitstream/handle/20.500.11822/33576/WG.38.3.Rev1-en.pdf?sequence=1&isAllowed=y>.

²⁷See UNEP(DEPI)/CAR WG.36/5, *Report of the working group to develop the criteria and process to assess exemptions under Article 11(2) of the SPAW Protocol* (includes draft guidance document)(2014), <https://wedocs.unep.org/bitstream/handle/20.500.11822/33618/WG.36-5-en.pdf?sequence=1&isAllowed=y>. See in particular *id.* Annex II (“Comments received from members of the ad hoc Working Group on the revised version of the Guidance Document proposed by the Government of the United States”), showing the different points of views of the Ad-Hoc Working Group and the U.S reservation to Article 11(2) of the CAR-SPAW Protocol.

ommends that exemptions of prohibited activities under CAR-SPAW that would allow sea turtle fishing contrary to Ramsar Res. XIII.24 be avoided.

Moreover, it is essential to clarify whether exemptions provided by Article 14 of the CAR-SPAW Protocol are the legal bases for Parties that have signed and ratified the Protocol but still authorize sea turtle fishing.

CMS has been signed and ratified by the United Kingdom, and, with the exception of Anguilla, applies to its Overseas Territories.²⁸ However, the British Virgin Islands and Montserrat allow sea turtle fishing. Article 9 of the Bern Convention also provides for:

exceptions from the provisions of Articles 4, 5, 6, 7 and from the prohibition of the use of the means mentioned in Article 8 provided that there is no other satisfactory solution and that the exception will not be detrimental to the survival of the population concerned:

. . . .

– To permit, under strictly supervised conditions, on a selective basis and to a limited extent, the taking, keeping or other judicious exploitation of certain wild animals and plants in small numbers.²⁹

Exceptions allowing sea turtle fishing under the Bern Convention would also be contradictory to the “public health interest and safety” provision of Article 9(1), as further developed hereinafter. A reporting system of these exceptions is clearly defined in Article 9(2), and reports are to be submitted every two years to the Standing Committee of the Convention.

Since its June 1, 1982 entry into force, the United Kingdom has not communi-

²⁸CMS, *Application of CMS to Overseas Territories/Autonomous Regions of Parties and Reservations Regarding Species in the CMS Appendices* (2015), https://www.cms.int/sites/default/files/document/territories_reservations%202015.pdf.

²⁹ Bern Convention, *supra* note 8, art. 9(1).

cated any reservations concerning sea turtles for its covered territories nor for the territories to which the Convention does not apply.³⁰ Biennial reporting to the Standing Committee is mandatory for exceptions provided under the Bern Convention, but the UK has not reported any sea turtle fishing permitted activities in its Overseas Territories. The deliberate killing of sea turtles has been reported as happening in Northern Ireland. To what extent is unknown, but one license had been registered under the “public health and safety” provision.³¹ Whether sea turtle fishing activities were authorized in UK Overseas Territories (specifically in BVI Montserrat for purposes of this Article) based on this lack of compliance with the Bern Convention needs clarification.

Ramsar also applies to UK Overseas Territories where several RAMSAR sites are listed. In the Caribbean region, eleven British Ramsar sites are listed, two of them within the Lesser Antilles (one in the British Virgin Islands in Anegada and one in Anguilla). Projects are funded under the Convention.³²

Sea turtle fishing activities and their legal basis in the UK Overseas Territories of the Caribbean region were studied in 2004, and the results highlighted the fragmentation of the legislation concerning sea turtles and the need to reform these laws that were drafted several decades ago when sea turtle biology was less understood.³³

³⁰See *supra* note 7.

³¹See Bern Convention, *Biennial Report 42* (2015-2016), <https://rm.coe.int/biennial-report-2015-2016-united-kingdom/16808e8f29>.

³²See United Kingdom of Great Britain and Northern Ireland | Ramsar, Ramsar.org (2020), <https://www.ramsar.org/wetland/united-kingdom-of-great-britain-and-northern-ireland> (last visited Dec. 21, 2020).

³³See Godley et al., *supra* note 22, at 38.

Sea turtles are not considered as Highly Migratory Species under UNCLOS and are not listed in Annex I Highly Migratory Species of the Treaty.³⁴ Although Figure 3 of this Article demonstrates that juvenile *Chelonia mydas* cross the Atlantic Ocean from the Caribbean to Africa's coasts. *Dermochelys coriacea* are known to be deep Ocean inhabitants, whose migratory paths are, for instance, from their nesting beaches in South America to the Northern areas of the European Continent or the African Continent.³⁵ Hatchling cohorts of all species of sea turtles and all sea turtles at their Oceanic stages are reasonably predictable to be dispersed in all Seas and Oceans, except perhaps for the polar regions.³⁶ In light of the ongoing negotiations for an international legally binding instrument under the United Nations Convention on the Law of the Sea on the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction (General Assembly resolution 72/249),³⁷ this Article recommends that the migratory and highly migratory behaviour of the different species of sea turtles should be taken into consideration and the precautionary principle applied when scientific data are missing.

In 2019, during IPBES-7, the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) Report's Addendum Summary for Policy

³⁴UNCLOS, *supra* note 16, Annex 1 (highly migratory species).

³⁵See, e.g., Fossette S et al. (2010) *Atlantic Leatherback Migratory Paths and Temporary Residence Areas*. PLoS ONE 5(11): e13908. <https://doi.org/10.1371/journal.pone.0013908>.

³⁶See Putman et al. *Predicted distributions and abundances of the sea turtle 'lost years' in the western North Atlantic Ocean*, 43(4) ECOGRAPHY 506–517, 2020 (2019). Model predictions of sea turtle distribution/abundance is publicly available at VirTu, the juvenile sea turtle density estimator tool, at <https://vir-tu.mesophotic.ccs.miami.edu>. This article studies dispersal prediction models for *Lepidochelys kempii*, *Caretta caretta* and *Chelonia Mydas* in the Northern Atlantic Ocean.

³⁷See United Nations Intergovernmental Conference on an international legally binding instrument under the United Nations Convention on the Law of the Sea on the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction (General Assembly resolution 72/249); <https://www.un.org/bbnj/> (Last Visited Dec. 23, 2020).

Makers warned that:

Human actions threaten more species with global extinction now than ever before. An average of around 25 per cent of species in assessed animal and plant groups are threatened ..., suggesting that around 1 million species already face extinction, many within decades, unless action is taken to reduce the intensity of drivers of biodiversity loss. Without such action, there will be a further acceleration in the global rate of species extinction, which is already at least tens to hundreds of times higher than it has averaged over the past 10 million years.³⁸

With one million species being threatened by extinction, the Report of the Plenary IPBES-7 session's addendum further called for "transformative changes" to restore and protect nature.³⁹ IPBES 2018 assessment summary for policymakers for the Americas stated that "the majority of the countries in the Americas are using nature at a rate that exceeds nature's ability to renew the contributions it makes to the quality of life."⁴⁰ In particular, this report warned that "habitat conversion, fragmentation and overexploitation/over-harvesting are the greatest direct drivers of loss of biodiversity, loss of ecosystem functions and decrease of nature's contributions to people from local to regional scales in all biomes."⁴¹ Further, the report suggested that "[m]ainstreaming conservation and sustainable use of biodiversity in productive sectors is extremely important for the enhancement of nature's contributions to people."⁴²

³⁸SEE IPBES7/10/ADD.1, *Report of the Plenary of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services on the work of its seventh session Addendum Summary for policymakers of the global assessment report on biodiversity and ecosystem services of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services A5*, (2019), https://ipbes.net/sites/default/files/ipbes_7_10_add.1_en_1.pdf.

³⁹*Id.* at C. and D.

⁴⁰Jake Rice, et al., *Regional Assessment Report on Biodiversity and Ecosystem Services for the Americas*, IPBES, 2018, at V, https://ipbes.net/sites/default/files/2018_americas_full_report_book_v5_pages_0.pdf.

⁴¹*Id.* at XV.

⁴²*Id.* at XVI.

Pragmatically, sea turtle fishing authorised in the Lesser Antilles maintains several threats pressuring sea turtles populations, and can be considered as over-harvesting: it is not a sustainable practice to authorize sea turtle fishing every year, to target adult turtles, and to allow fishing during the “nesting season”, either partially or completely.⁴³ The real number of sea turtles extracted nationally seems unknown and only starting to be assessed in some territories. The sanctioning system can be insufficient, as sea turtle fishing was reported to continue during the closed season and to target sea turtle species normally protected by domestic law – that is, nesting females.⁴⁴ It also is unclear whether there are inspection programs and monitoring at a national level. It is rare that permits/licenses are required.⁴⁵ It is also important to consider that sea turtles, *Chelonia mydas* and *Eretmochelys imbricata* particularly, could actually continue to lay a significant number of clutches in the Lesser Antilles throughout the year, outside of “sea turtle nesting season”, customary defined as going from March until October.⁴⁶ National Species Management Action Plans need to be implemented or enforced to assure adequate conservation.

CITES COP18 Decisions 18.210 to 18.217 *Marine turtles (Cheloniidae spp. and Dermochelyidae spp.)* developed an extensive list of actions aiming at addressing these

⁴³Amie Bräutigam & Karen Eckert, Turning the Tide: Exploitation, Trade and Management of Marine Turtles in the Lesser Antilles, Central America, Colombia and Venezuela, TRAFFIC International (2006), https://www.traffic.org/site/assets/files/5086/traffic_species_reptiles10.pdf/. Those issues were also reported in Godley, et al., supra note 22.

⁴⁴These are also recurring issues reported to the Widecast network by Widecast Coordinators of territories allowing sea turtle fishing, e.g. Grenada, St. Lucia and St Kitts and Nevis.

⁴⁵See also Appendix 1 and accompanying notes.

⁴⁶The statement concerning the abundance of sea turtles nests outside of “sea turtle nesting season” come from personal observations of unpublished datas, e.g. in Saint Martin FWI, in St.Croix USVI.

issues.⁴⁷ CITES Decisions 18.210 to 18.213 particularly provide for the implementation or enforcement of national sea turtle management plans.⁴⁸ Parties were also urged Decision 18.211 to

improve monitoring, detection and law enforcement activities related to marine turtles in coastal areas and at transaction points (e.g. in the marketplace, online, maritime areas, and at air- and seaports),... enforce national and international regulations or other mechanisms that apply to marine turtles take and trade; ... and improve accountability for the practices undertaken by all vessels and improve the monitoring and control related to CITES-listed marine turtles at landing sites.⁴⁹

A clear definition of “traditional activities” is urgently needed. If traditional activities generate an income or if they are solely intended for personal use and subsistence also needs to be clarified.

I argue that sea turtle fishing, which typically consists of dismembering the living turtle at sea or at landing sites or burning the turtle alive on a bonfire to soften its shell before dismemberment, is a cruel and inhumane practice.

Turtle meat could be considered “ocean bushmeat,” due to its consumption by-passing veterinary sanitary controls, which can be mandatory under national laws for the protection of the general population. The European Union, for instance, has devel-

⁴⁷See CITES COP18 Decisions 18.210 to 18.217 *Marine turtles (Cheloniidae spp. and Dermochelyidae spp.)*, <https://cites.org/eng/taxonomy/term/42085>.

⁴⁸See CITES COP18 18.210, at para. c, CITES COP18 18.211, at paras. a & c, CITES COP18 18.212, at para. a, CITES COP18 18.213, at para. a.

⁴⁹*Id.*, CITES COP18 18.211, at paras. f, i & j.

oped an extensive system of legislation and controls concerning seafood security.⁵⁰ Not only can concentrations of *Salmonella spp.*, *Escherichia coli* or the presence of parasites be routinely checked in edible seafood products by veterinary inspection services directed by national monitoring and control action plans, but persistent organic and inorganic pollutant levels can also be controlled. Persistent organic pollutants can be carcinogenic, immunosuppressant or endocrine disruptors (such as dioxins, polychlorobiphenyls PCBs, dioxin-like PCBs, furans, benzene derivatives, Aromatic Polycyclic Hydrocarbons, pesticides, etc.). Inorganic pollutants are heavy metals; metalloids (such as lead, arsenic, mercury etc.), that can be carcinogenic; or radionucleoids, that can be irradiant. Radionucleoids can come from fertilizing or mining activities. Chemical pollutants contaminating seafood often come from anthropogenic activities.⁵¹

Exemptions allowing sea turtle fishing currently provided under several Conventions may represent a threat to public health. There have been reported cases of lethal intoxication associated with the consumption of turtle meat.⁵² In published cases of mass poisoning causing the death of children, adults, and dogs due to chelonitoxism (sea turtle meat poisoning), the World Health Organization (WHO) has found the meat of all species of sea turtle to be potentially toxic.⁵³ Global warming raises ocean temperature and induces ecological disturbance, which then modifies the chorology toxicity

⁵⁰ See, e.g., European Commission, *National Veterinary Programs*, https://ec.europa.eu/food/funding/animal-health/national-veterinary-programmes_en (last visited Dec. 28, 2020).

⁵¹ See, e.g., European Commission, Food Safety, Biological Safety, *Food-borne Diseases (Zoonosis)*, https://ec.europa.eu/food/safety/biosafety/food_borne_diseases_en; and Legislation on *Chemical Safety*, https://ec.europa.eu/food/safety/chemical_safety/contaminants/legislation_en (last visited dec. 28, 2020).

⁵² Boris I. Pavlin et al., *Mass Poisoning After Consumption of a Hawksbill Turtle*, *Federated States of Micronesia*, 2010, 6(1) W. PACIFIC SURVEILLANCE & RESPONSE J., Jan.-Mar. 2015, at 25.

⁵³ Ray Justin Ventura et al., *Chelonitoxism Outbreak Caused from Consuming Turtle*, *Eastern Samar, Philippines*, August 2013, 6(2) W. PACIFIC SURVEILLANCE & RESPONSE J., Apr.–Jun. 2015, at 12.

and behavior of many species of venomous or poisonous aquatic life forms such as algae, ascidians, fishes, and shellfishes. Poisoning from the consumption of infected seafood is an increasing public health issue.⁵⁴

Another sea turtle-related public health risk is exposure to *Salmonella typhimurium*, a novel and potentially host-adapted strain, distinct from other known strains of the species, infecting *Lepidochelys olivacea* in the Pacific region. This infectious agent has been demonstrated to chronically infect the kidneys of Olive Ridley turtles in the Pacific region: renal abscesses observed due to *Salmonella typhimurium* were identified in stranded sea turtles and were likely the primary cause of the death and poor body condition of nearly half of the stranded sea turtles autopsied in a recent study.⁵⁵ The same infectious agent was also identified as a cause of sea turtle nephritis — specifically nephritis of sea turtles found drowned due to fisheries bycatch. While different hypotheses exist concerning the origin of *Salmonella typhimurium* in the Olive Ridley sea turtles, contaminated coastal seawaters are a likely source. *Salmonella spp.* are common in coastal watersheds that are impacted by urbanization and agriculture. They remain viable in sea water for up to thirty-two weeks, and are thought to migrate up the ureters of sea turtles. Based on molecular data, the vast majority of sequenced isolates from *Lepidochelys olivacea* showed that this variant of *Salmonella typhimurium* was possibly from human-associated, terrestrial sources. Another hypothesis as to the origin of *Salmonella typhimurium* is that it is endemic to Olive Ridley turtles; that the turtles are themselves a reservoir for the pathogen, which they could transmit to each other via

⁵⁴Corinne Schmitt & Luc de Haro, *Clinical Marine Toxicology: A European Perspective for Clinical Toxicologists and Poison Centers*, 5 TOXINS 1343-1352 (2013).

⁵⁵Thierry M. Work et al., *A Novel Host-Adapted Strain of Salmonella Typhimurium Causes Renal Disease in Olive Ridley Turtles (Lepidochelys Olivacea) in the Pacific*, 9 SCIENTIFIC REPORTS 9313 (2019), <http://www.nature.com/articles/s41598-019-45752-5>.

a fecal-oral route while nesting or while breeding at sea. To what extent this pathogen is chronically infecting asymptomatic Olive Ridleys in the Pacific Region is unknown and difficult to study. *Salmonella typhimurium* is also potentially transmitted to sea turtles' eggs, which are commonly consumed in communities where their harvest is authorized. Thus, *Salmonella typhimurium* is not only a risk to the sea turtles themselves; it also threatens the humans who consume their eggs. Communities consuming Olive Ridleys turtles' eggs must be alerted to the associated health risks of doing so.⁵⁶

A greater transparency is required regarding the authorized sea turtle fisheries and the exemptions they rely on. Allowing sea turtle fishing puts the research and good-faith conservation efforts of cooperative states at risk for the survival of these endangered species.

International Customary Law guarantees that states have sovereignty over natural resources within their jurisdiction. But does not a Range State, as defined in CMS,⁵⁷ have the international obligation to protect an endangered species on behalf of the International Community and for present and future generations? Professor Peter H. Sand highlighted that endangered species

[m]ay very well be viewed as (non-renewable) common resources. Accordingly, State authorities apply the treaty not only by virtue of their own sovereign powers over the specimens or populations of animals or plants concerned, but act at the

⁵⁶*Id.* as footnote 55 Work et al. (2019).

⁵⁷CMS, *supra* note 10, art. I(h) A (“‘Range State’ in relation to a particular migratory species means any State . . . that exercises jurisdiction over any part of the range of that migratory species, or a State, flag vessels of which are engaged outside national jurisdictional limits in taking that migratory species.”).

same time as agents or trustees mandated by the international community to protect the species as a whole.⁵⁸

This Article's comparative analysis of the legal framework pertaining to sea turtles in the Lesser Antilles highlights a lack of compliance with, and a lack of implementation of, MEAs.

Gaps in international environmental law weaken the implementation of the type of coherent network needed for the survival of endangered species. The United Nations General Assembly, in its 2018 Resolution, *Towards a Global Pact for the Environment*, requested that the Secretary General undertake an independent review of the instruments that comprise contemporary international environmental law and identify gaps and relationships with other related fields of law.⁵⁹ The U.N. Secretary-General's report titled *Gaps in International Environmental Law and Environment-Related Instruments: Towards a Global Pact for the Environment* emphasized that "[i]nstitutional fragmentation and a lack of coordination are key challenges with regard to the current international environmental governance."⁶⁰ Moreover,

As noted in the context of the United Nations Conference to Support the Implementation of Sustainable Development Goal 14: Conserve and sustainably use the oceans, seas and marine resources for sustainable development (the Ocean Conference), held in 2017, a number of challenges remain to be addressed, in

⁵⁸Peter H. Sand, *International Protection of Endangered Species in the Face of Wildlife Trade: Whither Conservation Diplomacy?*, 20(1) ASIA PACIFIC J. ENV'T L. 5, 14 (2017), https://www.researchgate.net/publication/319237636_International_protection_of_endangered_species_in_the_face_of_wildlife_trade_Whither_conservation_diplomacy/.

⁵⁹G.A. Res. 72/277, *Towards a Global Pact for the Environment* (May 14, 2018), https://www.un.org/en/ga/search/view_doc.asp?symbol=A/RES/72/277.

⁶⁰U.N. Secretary-General, *Gaps in International Environmental Law and Environment-Related Instruments: Towards a Global Pact for the Environment*, ¶ 81, U.N. Doc. A/73/419 (Nov. 30, 2018).

particular those resulting from predominantly sectoral approaches to ocean management and the ineffective implementation and compliance that partly stems from a lack of coordination and capacity. . . . Implementation of legal and policy instruments is further affected by regulatory and administrative structures at the national level.⁶¹

Many of the threats, as well as the habitats, ecosystems or species to which they apply, do not respect national boundaries or are found in areas beyond national jurisdiction. At the same time, in the light of the complexity of the issue, the science is incomplete or lacking in some aspects. The legal instruments for the conservation of biodiversity have developed without an overall strategy and have no coherent structure. This situation leaves some issues without specific, legally binding regulation.⁶² In response to the Secretary General's report, the IUCN World Commission on Environmental Law noted:

Clarity and consistency in defining core principles [of International Environmental Law], in a legal instrument, would simplify the complex task of operationalizing environmental agreements. The multiplicity of agreements has made it difficult for States to provide sufficient national civil servants and diplomats to participate in all the international regimes. It has also led to concerns about legal inconsistencies and institutional fragmentation and a lack of legal certainty.⁶³

This Article recalls the obligation of the strict compliance with sea turtles protections implemented on numerous islands of the Lesser Antilles, islands that are as well rigorously complying with the international treaties signed. It recommends that region-

⁶¹*Id.* ¶ 61.

⁶²*Id.* ¶ 41–41.

⁶³World Commission on Environmental Law of the International Union for the Conservation of Nature, International Council of Environmental Law, & International Group of Experts for a Global Pact for the Environment, *Note on the U.N. Secretary-General's Report, "Gaps in International Environmental Law and Environment-Related Instruments: Towards a Global Pact for the Environment"* (2018), https://www.iucn.org/sites/dev/files/noteforunsgenvllawrptdec2018_final.pdf.

al cooperation remain in the scientific and technical realm, and that it not further legally bind those islands to sovereign states or overseas territories, which should clarify first and foremost their national laws allowing sea turtle fishing in accordance with the international treaties with which they are obliged to comply. This Article also recalls the non-regression principle of environmental law which prohibits any recession of environmental law or existing levels of environmental protection, and comprises its protective norms in the category of non-revocable and intangible legal rules, in the common interest of humanity.⁶⁴

3. Sea Turtles poaching and illegal international trade Vs Sea Turtles “non use” economic values

There are numerous examples of sea turtle poaching at national levels in the Lesser Antilles. Sea turtle poaching is happening in the French Antilles, within and outside of Marine Protected Areas (MPAs).⁶⁵ A regional trade in sea turtle meat has been reported. For instance, 75 kilograms of Green turtle meat was seized in 2016 in Martinique on a yole with St. Lucia’s Flag, together with 30 kilograms of sea urchin eggs.⁶⁶ The World Customs Organization Illicit Trade Report of 2017 stated that:

Environmental crime may be a lesser known form of illegal trade, but it is a particularly pernicious one. Not only does it destroy the environment with irreversible consequences, it deprives people of their livelihood and sources of revenue, while also endangering the health of humans, animals and plants.

⁶⁴See InforMEA *Principle of non-regression*, draft based on M. Prieur 'Le principe de non régression en droit de l'environnement, condition du développement durable', RADE, 2013, <https://www.informea.org/en/terms/principle-of-non-regression>.

⁶⁵France-Antilles Guadeloupe, *Gaïa, la Tortue Miraculée*, Sept. 15, 2013, <http://www.guadeloupe.fr/ceantilles.fr/actualite/environnement/gaia-la-tortue-miraculee-233661.php>.

⁶⁶Le Marin, *Martinique: deux braconniers de chair de tortue arrêtés*, Aug. 21, 2016, <https://lemarin.ouest-france.fr/secteurs-activites/peche/26397-martinique-deux-braconniers-de-chair-de-tortue-arretes>.

It further noted that:

Millions of specimens from all species of fauna and flora are massacred each year for a profit estimated at \$91- 258 billion USD per year, an amount that is, according to the United Nations Environment Programme (UNEP), growing at 2-3 times the pace of the global economy. This makes environmental crime the fourth largest criminal endeavor in the world, following drug trafficking, counterfeiting and trafficking in human beings.⁶⁷

The understanding of the economic value of environmental goods and services is essential. Sea turtle “non-use” values for a country’s economy have been studied and enhanced by sea turtle experts. For instance, studies on Tobago showed that sea creatures and high levels of coral reef sightings added to the value of underwater recreational dives. Sightings of sea turtles were especially appreciated by divers, and the presence of sea turtles during a dive increased the dive’s value more than the presence of any other wildlife. Divers were indeed willing to pay over US\$62 per two tank dive for the first turtle encounter, approximately US\$20 additional for the second encounter, and yet another US\$20 for each additional encounter on Tobago.⁶⁸ Corroborative results have been found on Barbados where divers were willing to pay over US\$57 for the first encounter with a sea turtle, and approximately US\$20 per two-tank dive for each additional encounter.⁶⁹

The aggregate annual value of turtle encounters on dives on Tobago between 2007 and 2010 has been estimated to be approximately US \$863,000. The study further

⁶⁷World Customs Organization, *Illicit Trade Report 2017* [hereinafter WCO 2017], WCO 92 (2018), http://www.wcoomd.org/-/media/wco/public/global/pdf/topics/enforcement-and-compliance/activities-and-programmes/illicit-trade-report/itr_2017_en.pdf?db=web. Section 3. Environment Figure 13 of the WCO report identifies wildlife illegal trade routes flowing from the Caribbean. *Id.* at 109.

⁶⁸See Michelle Cazabon-Mannette, Peter W. Schuhmann, Adrian Hailey & Julia Horrocks, *Estimates of the Non-Market Value of Sea Turtles in Tobago using Stated Preference Techniques*, 192 J. ENV’T MGMT. 281 (2017).

⁶⁹See Peter W. Schuhmann, James. F. Casey, Julia Horrocks, & Hazel A. Oxenford, *Recreational SCUBA Divers’ Willingness to Pay for Marine Biodiversity in Barbados*, 121 J. ENV’T. MGMT. 29 (2013).

explained that the average market value of a turtle illegally caught for consumption on Tobago was approximately US \$108 and that since divers were willing to pay over US\$62 per two-tank dive for the first turtle encounter; the results suggested that a turtle needed only to be viewed by a diver twice in its lifetime for its non-consumptive use value to exceed the market value of its meat and shell.

Between 2006 and 2014, St. Kitts's sea turtle monitoring network managed to significantly reduce leatherback extraction by local fishermen, thanks to genuine collaboration, development of eco-touristic activities, and creation of jobs related to the project.⁷⁰

The 2017 World Customs Organization report showed that sea turtles were illegally traded from the Caribbean to Western Europe and from the Caribbean to Eastern Europe Asia/Pacific. These trafficking routes were mainly by air or by mail.⁷¹ A recent seizure of over 1 400 pieces of green and hawksbill turtles shells in the United States at Miami International Airport coming from Nicaragua en route to Asia showed another trafficking route.⁷²

To what extent legal sea turtle fishing fuels the illegal local and regional trade is unclear, although studies show that this threat is significant in the Caribbean region. Researchers investigating sea turtle populations believe that many sea turtle extractions are unreported, as fishermen may be butchering sea turtles at sea.⁷³ WildAid's 2018 report

⁷⁰Kimberly M. Stewart, Terry M. Norton, Dana S. Tackes, & Mark A. Mitchell, *Leatherback Ecotourism Development, Implementation, and Outcome Assessment in St. Kitts, West Indies*. 15(2) CHELONIAN CONSERVATION AND BIOLOGY 197 (2016).

⁷¹WCO 2017, *supra* note 65.

⁷²See Miami Herald, *Endangered sea turtle shells disguised as blue plastic seized at MIA en route to Asia*, Aug, 23, 2020, <https://www.miamiherald.com/news/local/environment/article244900152.html>

⁷³Corinne S. Martin, John Jeffers & Brendan J. Godley, *The Status of Marine Turtles in Montserrat (Eastern Caribbean)*, 28(2) ANIMAL BIODIVERSITY AND CONSERVATION 159 (2005).

explained that demand for Hawksbill turtle products remains strong; Chinese tourists in particular were purchasing sea turtle souvenirs in the Caribbean and mailing them to themselves in their home countries. The WildAid report findings concurred with WCO's 2018 report. "A WildAid/Intage survey of 1,500 residents in Beijing, Shanghai, Guangzhou, Beihai, and Sanya revealed that 17% of respondents had purchased sea turtle products and 22% would consider making a purchase in the future."⁷⁴

In the Lesser Antilles, Grenada is listed as a sea turtle souvenir demand hotspot. The fact that half a ton of hawksbill shells were seized by customs officers at Paris Charles de Gaulle Airport coming from Cuba going to Vietnam in July 2017 puts the region's illegal sea turtle trade in perspective.⁷⁵

When a sea turtle souvenir is purchased in a country where sea turtle fishing is nationally authorized, that item then becomes a "personal or household effect" under CITES. Tourists might not always be aware that they must obtain a CITES permit of export and import in order to travel back to their State of usual residence with this "souvenir." Article III of the Convention Text mandates that a permit be granted prior to the import or export of CITES Appendix I-listed species that are to be used for non-commercial purposes. CITES Article VII, *Exemptions and Other Special Provisions Relating to Trade* provides:

The provisions of Articles III, IV and V shall not apply to specimens that are personal or household effects. This exemption shall not apply where: (a) in the case of specimens of a species included in Appendix I, they were acquired by the owner outside his State of usual residence, and are being imported into that State⁷⁶

⁷⁴Li Yifan, *Sea Turtle Smugglers Cashing In*, China Dialogue Ocean (Aug. 14, 2018), <https://chinadiialogueocean.net/4096-smugglers-cashing-in-on-sea-turtles/>.

⁷⁵See Li Yifan, *Sea Turtles: An Uncertain Future*, WILDAID 15 (2018), www.wildaid.org/wp-content/uploads/2018/05/SeaTurtleReport.pdf.

⁷⁶See CITES, *supra* note 7, art. VII(3)(a).

Resolution 13.7 (Rev. CoP17) on the control of trade in personal and household effects defines “personal or household effects.” Notably, at the time of import, export or re-export, such items must be worn, carried or included in personal baggage; or be part of a household move.⁷⁷ CITES Resolution 13.7 also provides guidelines for the interpretation of Article VII paragraph 3 of the Convention:

Article VII, paragraph 3 (a), excludes Appendix-I specimens from this exemption [of CITES permits] when they have been acquired outside the person’s country of usual residence. Appendix-I specimens may be acquired from other countries, but they must be imported home under the conditions of Article III or other paragraphs in Article VII.⁷⁸

The sale of Appendix I products in international airports is prohibited under Resolution Conf.13.7. Rev.Cop17.

In its August 2018 Preliminary Report on sea turtle trade, the CITES Secretariat concluded, with regard to the Inter-American and other regions, that, “[s]o far, it has not been possible to identify, neither in the field nor in literature, solid evidence of linkages between these domestic markets and larger scale, international trafficking networks involving these regions.”⁷⁹ The preliminary report confirmed significant numbers of sea turtle were extracted across the wider Caribbean, representing one-third of the global sea turtle harvest:

Based on data made available between 2010 and 2013, Humber et al. (2014) estimated that more than 42,000 marine turtles are annually caught as legal take in

⁷⁷CITES, Res. Conf. 13.7 (Rev. CoP17), *Control of Trade in Personal and Household Effects*, https://cites.org/sites/default/files/document/E-Res-13-07-R17_0.pdf.

⁷⁸*Id.*

⁷⁹CITES Secretariat, *Status, Scope and Trends of the Legal and Illegal International Trade in Marine Turtles, its Conservation Impacts, Management Options and Mitigation Priorities*, Preliminary Report, SC70 Doc. 50, Annex 2 at 49 (2018), <https://cites.org/sites/default/files/eng/com/sc/70/E-SC70-50.pdf>.

those 42 countries [allowing a legal harvest], with 88.5% being green turtles (37,339), 8.2% hawksbills (3456), 2.5% loggerheads (1051), 0.6% olive ridley (263), and 0.1% leatherbacks. . . . Legal take was considered to be mainly concentrated in two global regions: the Indo-Pacific, accounting for 63.3% of estimated take (26,675 turtles/year; 17 countries); and the wider Caribbean, accounting for 34.6% of estimated take (14,640 turtles/year; 16 countries).⁸⁰

The CITES Secretariat preliminary report also explained the difficulty of an assessment:

“It is relevant to acknowledge the extreme difficulty in doing so given the generally scarce availability of documented data and individuals’ unwillingness to share information on an activity illegal in nature.”⁸¹ Further, the report highlighted the lack of compliance and gaps in domestic laws: “[C]onducting a thorough review of protective legislation and its inconsistencies within countries and regions is of noted importance (e.g. in the InterAmerican Region).”⁸² Finally, the report stressed the importance of cooperation by stating that “efforts are needed to promote further regional cooperation and communication for marine turtle conservation, particularly among CITES, IAC, CMS, IOSEA, SPAW Protocol (and WIDECAST), Ramsar and any others relevant bodies to share information, identify conservation activities and optimize synergies and resources.”⁸³

Further recommendations are as follows: In countries where sea turtle fishing is authorized, the development of a CITES certification and marking system is suggested. The effective monitoring of sea turtle fishing could be performed at two control points: at landing sites where sea turtles are introduced from the sea or from the national exclusive economic zone; and at souvenir retailers’ selling points, where the products are vis-

⁸⁰*Id.* at 11.

⁸¹*Id.* at 3.

⁸²*Id.* at 4.

⁸³*Id.*

ibly at risk of entering international trade. CITES tagging of sea turtle parts and derivatives at landing sites would enable the traceability of those Appendix I products that are prohibited from entering international trade. CITES marking of finished sea turtle products and the national registration of sea turtle product retailers would alert tourists and customers of their obligations to apply for CITES permits should they cross international borders with their CITES Appendix I-listed personal effects or “tourist souvenir specimens.” Requiring fishermen who practice sea turtle extraction to register with their national CITES management authorities would allow for better monitoring of the volume of sea turtles extracted by a party and ease the coordination of capacity building in the field of eco-sustainable fishery practices and other activities. Requiring retailers of sea turtle finished products to register with their national CITES authorities would enable the traceability of sea turtle products and the improve monitoring of turtles’ exploitation.

Sending sea turtle products via mail for primarily commercial purposes (including their sale for traditional medicine use) or as a personal effects (“tourist souvenir specimen”) should be clarified under CITES as prohibited activity.

These steps would supplement current domestic laws of the Lesser Antilles, in which some islands completely protect sea turtles either by permanent ban or a moratorium,⁸⁴ while a minority of islands are allowing sea turtle fishing.⁸⁵ The domestic laws are summarized in the Appendix’s Table 1.

⁸⁴These islands include the U.S. Virgin Islands, Barbados, Anguilla, Guadeloupe, St. Martin, St. Barthelemy, Martinique, Sint Maarten, Saba, St. Eustatius (Statia), Aruba, Bonaire, Curacao, Antigua and Barbuda, Trinidad and Tobago, St. Vincent, and the Grenadines.

⁸⁵The minority: BVI, Montserrat, Dominica, Grenada, St. Kitts, Nevis, and St. Lucia.

4. Comparative Study of Soft Law Instruments Concerning Sea Turtles in the Lesser Antilles.

Soft Law instruments to protect the environment by mitigating human impacts and enhancing the implementation of sustainable livelihoods have consistently developed and gained universal approval since the 1970s. These instruments have been established via the Stockholm Declaration of 1972,⁸⁶ the Rio Declaration of 1992,⁸⁷ Agenda 21 of 1992,⁸⁸ “The Future We Want” of 2012,⁸⁹ and the Sustainable Development Goals or Agenda 2030.⁹⁰ The fact that Small Island Developing States (SIDS), “although they are afflicted by economic difficulties and confronted by development imperatives similar to those of developing countries generally, have their own specific vulnerabilities

⁸⁶Report of the United Nations Conference of the Human Environment, A/CONF.48/14/Rev.1 (1973), https://www.un.org/ga/search/view_doc.asp?symbol=A/CONF.48/14/REV.1. The Declaration of the United Nations Conference on the Human Environment Stockholm was signed June 16, 1972. The conference issued the Declaration on the Human Environment, a statement containing 26 principles and 109 recommendations (now referred to as the Stockholm Declaration) from which a body of international environmental law has now developed. The creation of an environmental agency was also approved, now known as UNEP. In addition, a Stockholm Action Program was adopted. There were no legally binding outcomes resulting from the Stockholm Conference. Principle 21 of the Declaration was a restatement of law already in existence since Roman times, namely that of “good neighborliness.” See Louis B. Sohn, *The Stockholm Declaration on the Human Environment*, 14(3) HARV. INT’L L.J. 423 (1973).

⁸⁷U.N. Conference on Environment and Development, *Rio Declaration on Environment and Development* [hereinafter Rio Declaration 1992], U.N. Doc. A/CONF.151/26/Rev.1(Vol. I), (Aug. 12, 1992), https://www.un.org/en/development/desa/population/migration/generalassembly/docs/globalcompact/A_CONF.151_26_Vol.I_Declaration.pdf. Produced at the Earth Summit in 1992, the Rio Declaration set out 27 guiding principles for sustainable development throughout the world. The Declaration states that the only way to have any form of long-term growth is to ensure that it is grounded in the context of environmental protection. For example, principle 15 advocates the use of the precautionary principle. *Id.*

⁸⁸United Nations Conference on Environment & Development, *Agenda 21* (1992), <https://sustainabledevelopment.un.org/content/documents/Agenda21.pdf>. Agenda 21 is the outcome document of the United Nations Conference on Environment and Development [hereinafter Earth Summit] held in Rio de Janeiro from June 3–14, 1992. It develops a comprehensive global, national, and local plan of action for every area in which humans impact the environment. The full implementation of Agenda 21, the Programme for Further Implementation of Agenda 21 and the Commitments to the Rio principles, were strongly reaffirmed at the World Summit on Sustainable Development (WSSD), held in Johannesburg, South Africa from August 26–September 4, 2002.

⁸⁹U.N. G.A. Res. 66/288 (Sept. 11, 2012) [hereinafter *The Future We Want*], https://www.un.org/en/development/desa/population/migration/generalassembly/docs/globalcompact/A_RES_66_288.pdf.

⁹⁰U.N. Dep’t of Economic and Social Affairs, *Sustainable Development Goals* (2020), <https://www.un.org/sustainabledevelopment/sustainable-development-goals/>.

and characteristics” was first acknowledged at the Earth Summit in 1992.⁹¹ Specific programs have been consistently developed for SIDS: the Barbados Program of Action (BPOA) of 1994, complemented by the Mauritius Strategy of Implementation (MSI) of 2005, and the MSI+5 Outcome document.⁹² The SIDS Accelerated Modalities of Actions or Samoa Pathway of 2014 called for genuine and durable partnerships and for urgent actions and support for SIDS’ efforts to achieve their sustainable development.⁹³

The Future We Want of 2012 stated that these islands were special cases for sustainable development due to “their small size, remoteness, narrow resource and export base, and exposure to global environmental challenges and external economic shocks, including to a large range of impacts from climate change and potentially more frequent and intense natural disasters.”⁹⁴

The fact that these soft law instruments have gained universal approval within the international community indicates that contracting parties are willing to take elevated measures to ensure their economies remain sustainable and that they are able to adapt to climate change. In the Lesser Antilles, Antigua and Barbuda; Barbados; Dominica; Grenada; St. Kitts and Nevis; St. Lucia; St. Vincent; the Grenadines; and Trinidad and Tobago are Small Island Developing States. Dominica, Grenada, and St. Kitts and Nevis allow sea turtle fishing.

⁹¹See U.N. Global Conference on the Sustainable Development of Small Island Developing States, *Programme of Action for the Sustainable Development of Small Island Developing States*, U.N. Doc. A/CONF.167/9 (1994), Annex II at pmb1., https://www.un.org/esa/dsd/dsd_aofw_sids/sids_pdfs/BPOA.pdf [hereinafter Barbados Programme of Action or BPOA].

⁹²U.N. Dep’ of Economic and Social Affairs, *Sustainable Development: Small Island Developing Nations*, <https://sustainabledevelopment.un.org/topics/sids/coordination> (last visited Dec. 8, 2020).

⁹³*Id.*

⁹⁴*The Future We Want*, *supra* note 87, at ¶ 178.

The sustainable development of the Lesser Antilles is dependent on sea turtles for the region's thriving eco-tourism industry. Sea turtle fishing—often the result of a lack of compliance with MEAs—is a practice that deprives the region of its marine resources, compromises conservation efforts from neighboring islands, deprives present and future generations of their common natural heritage, and perpetuates illegal regional and global international trade.⁹⁵

5. Conclusion

Sea turtle fishing is allowed on a minority of islands in the Lesser Antilles and often is rooted in a lack of implementation of, and/or compliance with, the MEAs signed and ratified. This practice—slaughtering a significant number of endangered sea turtles—is unreliably monitored and perpetuates the illegal international trade of this vulnerable CITES Appendix I species. Recommendations arising from this research include but are not limited to:

- The alignment of treaties concerning sea turtles in accordance with Ramsar Resolution XIII-24 2019 going towards the halt of poaching and closure of sea turtle fishing.
- Defining what qualifies as exempted “traditional activities” and “traditional use of sea turtles” in order to clarify the implications and extent of sea turtle fishing.
- In countries allowing sea turtle fishing, the implementation of transparent monitoring practices, including but not limited to:

⁹⁵ This research applies to the Lesser Antilles islands. Concurring findings pertaining to other territories must be confirmed.

- the implementation of veterinary sanitary inspections in accordance with national laws;
- mandatory annual reporting at the international level to the respective Treaties Secretariats on sea turtle fishing and associated trade as regulated under CITES, the Bern Convention, and CMS in particular;
- Incorporating a traceability method into CITES's tagging of sea turtle parts and derivatives at landing sites that would flag prohibited species products before they could enter international trade. Requiring fishermen to register with their national CITES authorities is strongly recommended. The CITES tagging of sea turtle finished products is advised to alert customers/tourists to the international status of those products and remind them of their obligation to apply for a CITES export and import permit if their personal items were to cross international borders with them or as part of a household move. It is also advised that retailers of sea turtle products be required to register these items with their national CITES authorities.
- Clarification of CITES's position on the prohibition of export and import of sea turtle parts and derivatives via international mail.
- The implementation of funding for workshops and capacity-building in the field of alternative livelihoods, including local assessments of the needs of fishermen. Guidelines for a standardized method of study of the profession and its socio-economic specificities could be developed under CITES and could be adapted to local specificities. The development of alternative livelihoods—and

specifically of sustainable touristic activities—are of utmost importance in ensuring an effective and timely transition away from sea turtle fishing.⁹⁶

- In the context of the negotiations for an international legally binding instrument under the United Nations Convention on the Law of the Sea on the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction (General Assembly resolution 72/249) (ABNJ Treaty), recommendations include but are not limited to:

- that the migratory and highly migratory behaviour of all species of sea turtles are appropriately taken into consideration, by, for instance, including sea turtle species into Annexes of the ABNJ Treaty listing migratory and highly migratory species present in the High Seas;
- Considering CITES Article III paragraph 5⁹⁷ and CITES Resolution Conf. 14.6 (Rev. CoP16) *Introduction from the Sea*,⁹⁸ that the commercial activity of sea turtle fishing in the High Seas stays prohibited.

⁹⁶Numerous funding opportunities currently exist as for instance via UNEP, <https://www.unenvironment.org/about-un-environment/funding-and-partnerships/resource-documents>, and the Caribbean Biodiversity Fund, <https://www.thegef.org/about/funding>. The development of a “marine turtles capacity building program and fund” via CITES would enforce the implementation of CITES COP18 Decisions concerning these CITES Appendix I listed species, and in particular Decision 18.213 para.a.

⁹⁷See CITES Article III para. 5., <https://cites.org/eng/disc/text.php#III>

⁹⁸See CITES Res. Conf. 14.6(Rev. CoP16) *Introduction from the Sea* <https://cites.org/eng/res/14/14-06R16.php>. See all documents concerning *Introduction from the Sea* under CITES at <https://cites.org/eng/prog/ifs.php>.

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