



AFRICAN SEA TURTLE NEWSLETTER



Photo credit: © Programa Tatô / Sara Vieira

Programa Tatô's local marine monitoring team collecting data in São Tomé Island using COVID-19 precautionary measures.

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Corona Nous Couronne

Mustapha Aksissou

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Le monde entre dans une nouvelle ère...
De ralentissement ou arrêt ou agonie économique...
Pourquoi?
Parce que notre planète ne peut plus tolérer les conneries de l'humanité sur terre depuis la révolution industrielle...
Notre planète brûle...
Notre planète s'enflamme...
Laissons-la se refroidir progressivement....
Pour recevoir nos petits-enfants et les générations futures ...
Et leur donner une vie digne et harmonieuse...
J'espère que je me trompe....
Ce sont mes réflexions....
14 mars 2020

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Impact du COVID-19 sur le Projet de ATOMM au Maroc

Mustapha Aksissou

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Suite à la pandémie mondiale du Covid-19, le Maroc a commencé le confinement le 16 mars 2020 et dure tout le printemps 2020. Par conséquent la mobilité de la population est très restreinte voire même bloquée. Ceci a eu un impact sur les projets de conservation marine au monde et aussi au Maroc. Pour le projet de ATOMM (Association de Protection des Tortues Marines) sur « Building capacity for an effective sea turtle research and conservation program in the Kingdom of Morocco », il a été impacté aussi par le confinement sur plusieurs plans:

Etudiants: Pour les étudiants, les possibilités d'exécution des enquêtes sont entravées par la réduction de mobilité. Cependant et à travers le contact par téléphone avec les pêcheurs et la consultation des medias, il est toujours possible d'avoir des informations avec photos et mêmes vidéos. Mais les pêcheurs sont également en confinement pour la majorité, ce qui fait que les informations sont rares.

Réseau des échouages: Même si sur le terrain la mobilité est très difficile, cependant on reçoit parfois des photos des tortues marines échouées sur les plages à travers les medias et par les naturalistes voire parfois par les étudiants. Les journalistes sont actifs sur les observations des plages pendant la période de confinement probablement, et ils relient les échouages surtout du cnidaire *Velella* avec le Covid-19. Pour clarifier ce phénomène, ma lettre explicative sur les échouages de *Velella* est venue sur Facebook: [LINK](#) et dans une revue locale: [LINK](#)

C'est un message explicatif sur l'échouage de milliers de créatures étranges sur les plages de Tétouan, Fnideq et de la région en général en ce jour du 12 avril 2020. Aussi une réponse à plusieurs collègues qui ont demandé des éclaircissements à ce sujet pour clarifier le phénomène.

Collaboration avec les pêcheurs: La collaboration avec les pêcheurs existe toujours, mais avec moins d'informations car il y a peu de sorties en mer à cause du confinement ([YouTube](#)). La pêche artisanale fonctionne avec moins de sorties et apporte moins d'informations. La pêche côtière aussi fonctionne en partie et avec peu d'informations. La pêche hauturière a travaillé depuis le début de janvier 2020 jusqu'au mi-avril 2020, et les résultats sont également rares; peut-être les tortues marines sont aussi confinées!!

Collaborations avec les ONG: Les collaborations avec des organisations environnementales ont pu continuer notamment avec le journaliste Oussama Abaouss spécialisé en Patrimoine Naturel du Maroc (fondateur d'Ecologie.ma) malgré le confinement pour réaliser des séminaires pour les étudiants, les pêcheurs, et le public.

Sensibilisation: La période de Covid-19 a été une occasion extraordinaire pour réaliser beaucoup d'enseignements et cours de Licence ou Masters, visioconférences et interviews avec la télévision et radio locale et/ou nationale (surtout lors des occasions de Journées Internationale de Biodiversité ou Océans). Voir lien suivant: [LINK](#)

Publications/Présentations: Pendant cette période de confinement, les professeurs et doctorants ont eu le temps et l'occasion de rédiger des publications. Ce qui fait beaucoup de publications sont soumises bien sûr pour les données antérieures disponibles alors que les travaux sur terrain et aux laboratoires sont absents.

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Impact of COVID-19 on the 2020 Sea Turtle Nesting Season on Sal Island, Cabo Verde

Berta Renom & Albert Taxonera

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With the first nests being laid on Sal (according to information received from some witnesses), we are totally immersed in the planning of the nesting season and coping with the known changes and the uncertainties.

For the 2020 nesting season:

- The most significant change is that, for the first time, we will not be taking any International Field Assistants. Instead, our team will be fully composed of local field assistants. We estimate that it will be necessary to hire 34 people to patrol the southern beaches, plus 9 for the northern beaches.
- We will maintain our one regular beach camp, but at a smaller scale with only a few people living there permanently, because of its strategic location for beach patrols, and a better monitoring of the beaches and the hatchery.
- We will implement a fixed Team Leaders scheme, and teams will be fixed for fixed beaches. This is to acknowledge the most experienced guards, as well as to speed up the learning process of the many new ones.
- We will conduct regular night patrols.
- We will still accept short-term international volunteers if/when they are able to come to Sal throughout the season (we estimate no sooner than August 2020).
- With the potential support of the military, our teams will continue to provide maximum coverage of the island's targeted beaches.



Impact of COVID-19 on the 2020 Sea Turtle Nesting Season on Boa Vista Island, Cabo Verde

Projeto Tartaruga Boa Vista

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For the sea turtle projects on Boa Vista Island, the COVID-19 pandemic and the State of Emergency in Cabo Verde have led to funding losses and jeopardized the international and national volunteer program that supports the nesting beach monitoring, conservation, research, and training and education project on the island every year. Therefore, budgets and activities are being remodeled, and projects will rely on hiring local staff to replace international volunteers for conservation activities and, at the same time, support all those families on the island who have lost their source of income with the collapse of the tourism industry, the country's main economic sector. Activities on the beaches (camps, patrols, data collection, hatcheries etc.) have been authorized and can be implemented as usual, but with additional hygiene requirements such as provision of hand sanitation.

In addition to hiring local staff, the projects are raising money to helping vulnerable families, identified by civil society organizations in the various communities, through the distribution of protective masks, environmentally-friendly personal and home hygiene kits (soap, feminine products, toothpaste, bleach, dishwashing detergent, etc.), and perishable food products (fruit, vegetables, meat, etc.).



Impact of COVID-19 on the 2020 Sea Turtle Nesting Season on Maio Island, Cabo Verde

Rocio Moreno

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Due to the coronavirus pandemic, we are expecting very few or no international volunteers who usually come every year to support our local communities with beach patrols. Therefore, this year we are hiring only local people as guards, leaders, and supervisors to monitor the beaches, and we have fortunately been able to identify funding to fully support our Homestay programme despite the lack of international volunteers. Our Homestay programme supports female heads of households and (a) promotes female empowerment on the island and (b) creates an alternative livelihood to turtle poaching and/or other potentially environmentally damaging practices.

Fundação Maio Biodiversidade has ensured that the turtle season will keep contributing to the local economy, particularly in such difficult times. Also, we have a turtle season plan for all the staff with COVID-19 measures in place that have been approved by all the authorities.



COVID-19 and the Sea Turtle Conservation Effort in Sierra Leone

Edward Aruna

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What started as news from an unimaginable distance has today become an absolute reality in my country Sierra Leone, a country that recorded its first case in March 2020. The fear and panic threw many conservation and environmental organizations including the Reptile and Amphibian Program – Sierra Leone (RAP-SL) into shock and unbelievable breakdown. Many organizations in Freetown (the capital city, where the first case was recorded) including RAP-SL started working from home, a situation whose ripple effect reached other working forces in many parts of the country.

As a biodiversity conservation NGO, the choice of staying and working from home was/is considered a smart move since many communities no longer welcome people from the city because of the arrival of the Covid-19 pandemic in the country. Organizations that were/are presently welcomed are those with medical background and with goods to offer for economic/livelihoods needs. Everyone is presently worried about the pandemic so visiting and talking about biodiversity conservation in general is not a welcomed idea at the moment. In some communities they even consider you, the visitor, as a carrier of Covid-19 and hence a threat. The limitations by shutdowns and bans on inter-district movements made by the central government in curbing the spread of the virus are also factors affecting the conservation efforts.

As for RAP-SL, the Covid-19 outbreak has impacted all aspects of its activities. Since late March 2020, the staff at the Head Office in Freetown is presently working from home while those in the field are encouraged to do their bit. Its flagship project “Marine Turtle Conservation Project” has been largely affected by limited oversight of beach activities, limited education and sensitization meetings, workshops, and limited ability to complete some community development projects that were earlier started. Questions sometimes pondered include whether locals are still complying with the laws prohibiting the killing and poaching on eggs of turtles.

The government of Sierra Leone’s social distancing law is presently regulating the number of fishing crew per boat and for inter-district movements and state security reasons, night fishing is banned. It is presently not known how those laws are impacting the population of sea turtles in Sierra Leone, but one would be tempted to say that it is helping to reduce the bycatch rate of sea turtles since in most cases nowadays locals hardly leave their nets overnight. Also, due to the large fishing population, the movements of fishing boats are also restricted. No one is certain if they can go fishing every day except those in remote areas. Fewer boats fishing and the presence of military officers at most landing sites are also limiting the killing of turtles in most communities.

The needed collaboration with other NGOs and government institutions on conservation matters has also been hampered by the pandemic while the implementations of projects from whose activities sea turtle conservation would have benefited have been put on hold. Internships by university students at RAP-SL have been cancelled.

Lack of membership dues and fees have made a dent in RAP-SL’s fund-raising opportunities.

In conclusion, the future of biodiversity conservation and sea turtles in Sierra Leone could be worrisome should COVID-19 continue at the current pace.



Protecting Marine Turtles Amidst COVID-19 Pandemic in Liberia

Trokon A. Saykpa

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The outbreak of Covid-19 has not directly affected turtles and their nesting at the Little Bassa community, in Grand Bassa. In November 2019, beach patrolling began at the Little Bassa community and patrollers (also known as “monitors”) have been continually active on their patrols along the beaches, marking and protecting nests and inspecting returning canoes and small boats for turtle bycatch.

During the last nesting season in 2018/2019, we had an increase in the nesting trend, unlike the previous two seasons, so the monitors were all looking forward again to the nesting trend for this new season in 2019/2020. The team’s first three nests were marked around the Duo community beach, 5–6 kilometers away from Little Bassa town. The Duo town monitors have reported an increase in nesting on their beach particularly for leatherback sea turtles. At the Duo town beach, the leatherback nest count was 29, a figure higher than the 14 nests recorded in March 2019.

At the end of the peak of the nesting season, the Government announced Liberia’s first case of Covid-19, which was in mid-March 2020. Following the announcement, there were some measures and restrictions put in place to contain the spread of Covid-19 in Liberia. One of which is the restriction on movement between counties. However, this did not have any serious effect on the community beach and bycatch monitoring. The restrictions have helped to limit the local fishermen from going to sea, thus, reducing the threats to marine turtles through incidental captures.

Nevertheless, these restrictions have limited our monthly field monitoring visits especially to Sinoe county. Project activities including communal meetings and education workshops have been rescheduled due to the restrictions on public gatherings.



A villager at the beach to get some fish for food and market. Photo: John Peezed.

Basically, Covid-19 has struck a huge blow to the livelihood of communities in Liberia. This is especially true for local people living along the coast, who solely depend on proceeds from sales of fish and other farm products for survival. The local people’s livelihoods have been taken away from them due to general restrictions on movement and public gathering. *Our fear is that, if the trend of the Covid-19 continues up to the 2020/2021 nesting season, the need for an emergency alternate livelihoods program would be required for the local people to reduce the possibility of them returning to poaching turtle eggs and turtle meat for protein.*



Les impacts du COVID-19 en Côte d'Ivoire

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L'impact du Covid-19 sur le projet tortue marine en Côte d'Ivoire a été relativement léger. La surveillance des plages et des nids n'a pas été impactée car les patrouilleurs ont continué leur travail en toute sécurité jusqu'à la fin de la saison de ponte. Par contre, à cause de la disparition des visiteurs dans la zone, nos activités d'écotourisme comme les relâchés des nouveau-nées n'ont pas eu lieu. Le bilan habituel de fin de saison avec les techniciens n'a pas pu se faire normalement en groupe, mais il a été fait équipe par équipe dans chaque village.



*Relâche de petites de tortue olivâtre
(Photo: CEM).*

Dans le cadre de notre projet de développement communautaire, certaines activités ont été reportées à cause du Covid-19 y compris la sensibilisation, la restitution des résultats d'activités réalisées et les rencontres avec les associations des pêcheurs. Heureusement nous avons pu reprendre quelques séances dans les villages depuis le 10 juin 2020, en respectant évidemment toutes les précautions et les restrictions sanitaires.

Par rapport à l'incidence des menaces qui pèsent sur les tortues marines, nous enregistrons occasionnellement des captures accidentelles de juvéniles dans notre zone de travail. Cependant, il faut noter que ces captures ont diminué cette année et nous avons aussi recensé moins de carcasses sur

la plage pendant la saison. Donc nous supposons qu'il y a eu moins de tortues tuées ou prises accidentellement le long de la côte.

Quant aux populations elles sont toujours disposées à nous accompagner pour la sauvegarde de tortues, car deux cas de braconnages signalés dans nos plages ont été réglés avec l'implication des chefs, et les braconniers coupables ont été punis selon leur tradition.



Debriefing avec équipe de protection des tortues (Photo: CEM).

En plus, depuis mars 2020 nous avons constaté une absence de chalutiers (pirates ou pas) le long de la côte, donc on pourra dire que certaines espèces marines dont les jeunes tortues ont pu être épargnées grâce au Covid-19. Nous avons quelques hypothèses sur ce phénomène mais aucune certitude: peut-être la fermeture des frontières maritimes a empêché ces navires (venant souvent du Libéria) de sillonner la côte; peut-être ils sont restés bloqués pour cause de la fermeture des ports où ils déchargent la marchandise (Abidjan, Monrovia, Freetown, etc.), ou bien parce qu'il y a davantage de contrôles sanitaires dans ces ports; peut-être c'est plutôt lié à la diminution de la demande en poissons

due au confinement et à la fermeture de restaurants et autres et des frontières pour l'exportation du produit.



Réunion avec les notables du village (Photo: CEM).

Pour ce qui est la pandémie en Côte d'Ivoire, la situation en début de juin 2020 tend vers une sortie de la crise, puisqu'un bon nombre de restrictions ont été déjà levées, concernant surtout la région d'Abidjan, où se trouvent le presque 100 % des cas de maladie. À l'intérieur, il n'y a pas de cas, beaucoup de restrictions ont été déjà levées et d'autres pourraient l'être la semaine prochaine (en ce qui nous concerne, les réunions de jusqu'à 200 personnes sont permises). Par contre, une difficulté importante pour le projet reste l'isolement du Grand Abidjan, et donc le fait de ne pas pouvoir nous déplacer facilement vers le site du projet.

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Impact of COVID-19 on Sea Turtle Conservation in Ghana

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The whole world came to a standstill when the deadly Coronavirus, popularly referred to by many as Covid-19, hit planet earth. Conservation activities around the globe were severely impacted, and Ghana was no exception.

The Ghana Sea Turtle Conservation Project (GTCP), a community-based sea turtle group has field stations in three of the four coastal Regions in Ghana, namely the Greater Accra, Central, and Volta Regions. The project has been working, since 2006, to actively incorporate research, education, and ecotourism into long-term sea turtle conservation in Ghana. The project is a collaboration between the Florida Gulf Coast University, The Ghana Wildlife Division, and the local communities where the project exists. Through a network of community members, the project has been successful at reducing poaching of adult females, predation of eggs (mainly by dogs), and fisheries bycatch. Poaching and predation have been eliminated along some of the beaches.

The project has over the years received both national and international visitors and students who come to learn from the project by working as interns. Most of these students come to Ghana to undertake numerous volunteer services and will also visit the sea turtle project along the way. A few graduate students from the various universities in Ghana have also been involved with the project by conducting their thesis research on topics associated with sea turtle conservation. Travel restrictions imposed on most countries reduced Ghana's tourism and resulted in the GTCP receiving no international visitors so far in 2020. This has reduced revenue to the Wildlife Division of the Forestry Commission since nighttime sea turtle programs have not occurred. These funds help support community and school education programs so, in the short term, we expect the Wildlife Division will conduct fewer programs as a result of limited resources.

Domestically-induced shut down orders that restricted public gatherings required schools across Ghana to close. This closure impacted student research projects scheduled to be completed with the GTCP. It is unsure when students will be able to resume their research and if they will be able to wait for next year's nesting season to collect their data. Student involvement is critical to the GTCP's mission of improving the local capacity for managing sea turtle populations.

The coronavirus had limited impacts to the protection of sea turtles in Ghana. Wildlife Division officers maintained routine beach patrols and the nesting survey teams completed the nesting season without any restrictions. We did not observe the expected increase in poaching activities, but this is likely a function of integrating the local communities into our program. Community members keep a continuous watch on the beaches to ensure others do not collect eggs or harm the adults.



*Community volunteers of the GTCP.
Photo: Esther Tachie.*



*Community volunteers of the GTCP.
Photo: Andrews Agyekumhene.*



*Community volunteers of the GTCP.
Photo: Manasseh Yaw.*



International students undertaking voluntary work in Ghana, visit GTCP for night turtle watching. Photo: Prince Yankson.



Student from University of Ghana undertaking research work with GTCP. Photo: Prince Yankson.



Los Efectos del COVID-19 sobre las Tortugas de Guinea Ecuatorial e Impactos en las Actividades del Proyecto TOMAGE

Carolina Martínez Prieto

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Spanish

Tras las medidas adoptadas por el gobierno de Guinea Ecuatorial al confirmarse casos de coronavirus en la población (confinamiento, desplazamientos controlados, necesidad de credenciales para poder salir, etc.), se paralizaron todas las actividades del proyecto TOMAGE (Tortugas Marinas de Guinea Ecuatorial) en la Región Continental. La única excepción ha sido la realización del programa de radio "Guinea: Tesoro Verde" gracias a la credencial que expidió la Televisión nacional Asonga facilitando la movilidad de los voluntarios.

Por otra parte, suponemos que las amenazas principales que afectan las poblaciones de tortugas marinas han aumentado en los últimos meses. Al no haber controles en la costa y en las áreas protegidas por parte del ministerio, y suponiendo la falta de víveres en la población, habrán aumentado la captura y el consumo de tortugas marinas de manera exponencial.

En consideración de esto, TOMAGE esta focalizando sus esfuerzos sobre la educación ambiental. Además del programa de radio, la difusión de información se está haciendo online mediante los grupos de WhatsApp, Instagram, Facebook y mediante plataformas online del Centro Cultural Español. TOMAGE ha recibido muchos comentarios positivos también durante la celebración de la Semana de la Biodiversidad, en la que ha participado con un librito de colorear descargable en pdf sobre el tema de la protección de las tortugas marinas y con audios de sensibilización realizados por nuestros jóvenes y apasionados miembros de TOMAGE.



English



As a result of the measures adopted by the government of Equatorial Guinea with the confirmation of coronavirus among the population (lockdown, restricted movements, need for permits to travel, etc.), all activities of the TOMAGE project (Sea Turtles of Equatorial Guinea) were halted throughout the Continental Region. The only exception has been our involvement with the radio program "Guinea: Green Treasure" thanks to special permits issued by the Asonga National Television facilitating the mobility of our project volunteers.

Furthermore, we believe that the main threats to sea turtle populations have increased in recent months. As there are no ministry controls on the coast and in the protected areas, and as a consequence of food shortages among the population, the capture and consumption of sea turtles is likely to have increased exponentially.

In view of this, TOMAGE is continuing to focus its efforts on environmental education. In addition to the radio program, dissemination of information is being achieved primarily online through WhatsApp, Instagram, Facebook groups and through online platforms of the Spanish Cultural Center. TOMAGE has also received many positive comments during the celebration of Biodiversity Week, in which we participated with a downloadable coloring booklet in pdf on the subject of sea turtle protection and through awareness-raising audios recorded by our young and enthusiastic TOMAGE members.

Photo: TOMAGE volunteers at the radio program (Photo: TOMAGE) .



COVID-19 and Gabon's Interminable Lockdown

Angela Formia

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When COVID-19 restrictions took effect in Gabon in mid-March 2020, the sea turtle nesting season was almost over and nesting beach projects were busy wrapping up their field logistics and pulling in their patrol teams. Minor issues with finances, equipment storage and gathering datasheets were resolved relatively quickly and everyone that was on the beaches was able to return safely to their homes and families in time for the lockdown.

However, with the lengthening of restrictions and continued closure of all protected areas, impacts on project activities and their consequences on sea turtle conservation are increasing. All activities normally pursued outside of the nesting season (which corresponds to the dry season in Gabon) have had to be put on hold and are accumulating alarmingly. For instance, April-June was the period when staff had more time to focus on awareness-raising activities in schools around the country, reaching many thousands of students. The culmination of these initiatives was the traditional Turtle Day festivals, held at four coastal sites in May, and invariably gathering large groups of turtle friends of all ages for a chance to play, learn, dance, eat and celebrate sea turtles. They too had to be cancelled.

An activity unique to northern Gabon is the annual removal of logs lost by logging operations and washed-up on our nesting beaches. Surveying and removing these logs have been dry season activities for many years, in order not to disrupt nesting females and their nests and hatchlings. This year unfortunately there will be a gap in our long-running surveys of presence of logs and, unless the lockdown is lifted soon, we will be unable to launch our annual removal operations.

Even activities involving small groups in enclosed spaces (such as NGO offices) have been put on hold, including training sessions, data-entry, equipment maintenance, planning meetings, etc. Remote work has been encouraged wherever possible, although internet connections are sometimes slow and unreliable, particularly outside urban centres. Transport of people and materials around the country (other than essential goods) is also curtailed, so more remote field projects in central and southern Gabon have been isolated and out of reach.

Lastly, it should be noted that, threat levels to nesting beaches appear to be unchanged by the coronavirus pandemic, other than an apparent increase in plastics and debris runoff from cities and towns. However, it is likely that decreased presence of authorities and project patrollers at sea is likely to be leaving free reign to sea turtle hunters in areas where juveniles and adults occur in neritic waters year-round. The economic crisis associated with the pandemic and a shift in priorities for national authorities may also lead to decreased attention towards wildlife crime and illegal trade in endangered species. It is our hope, however, that COVID-19 may also eventually result in greater awareness of human interconnectedness with the environment and improved stewardship of our natural heritage.



Coping with COVID-19 in São Tomé and Príncipe: Challenges and Opportunities for Sea Turtle Conservation

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The coronavirus (Covid-19) pandemic has created a profound crisis for conservation efforts in several developing countries as a result of the sudden cessation of all international travel in regions where nature-based tourism and conservation are closely interdependent (Corlett *et al.* 2020).

São Tomé Island is the largest island in the archipelago of São Tomé and Príncipe located in the Gulf of Guinea, Central West Africa, and it is a known nesting and foraging ground for five species of sea turtles, including the critically endangered hawksbill sea turtle, *Eretmochelys coriacea* (Castroviejo *et al.* 1994). However, high levels of poverty (more than 60% of the population (World Bank 2019), gradual decline in fish abundance, and growing demand for animal protein (linked to rapid human population growth) have encouraged local communities to target even more sea turtles than have traditionally been exploited for human consumption, through intentional harvesting of females and eggs on nesting beaches and fisheries bycatch, thereby contributing to an illegal trade network.

Over the past several years, Programa Tatô has been the key driver for sea turtle conservation in São Tomé Island. To address the existing threats to these species, in partnership with coastal communities and local authorities, Programa Tatô has been highly active in developing community-based monitoring and protection activities, organizing public awareness campaigns, encouraging local authorities to improve law enforcement and developing alternative livelihoods based on community-based ecotourism.

The Covid-19 pandemic forced Programa Tatô to take extraordinary measures to respect the decisions taken by the government of São Tomé and Príncipe. Although beach and in-water monitoring and protection actions continue in order to avoid opportunistic sea turtle harvesting events, while respecting the appropriate security measures, all awareness-raising and outreach actions in schools, communities and in public in general were suspended. Sea turtle watching and ecotourism activities fortunately were not so affected since we were already at the end of our nesting season (September to April). However, the handicraft studio of the former women sea turtle traders' group was suspended, threatening the socioeconomic vulnerability of the 17 women who had invested in the manufacture and sale of original handicrafts made from recycled materials and African fabrics. Their products are for sale in tourist shops and in the main hotels operating on São Tomé Island that are currently closed due to the lockdown regulations in place.

We could not just sit back and do nothing in the face of this pandemic, so we took preventive measures. In our commitment to these people and to our work, we always try to keep our head high above all the difficulties, be creative and have a Plan B.

Awareness-raising is one of our strongest tools to fight sea turtle capture and trade, especially in a difficult moment like this that the communities are facing and one that could jeopardize all the hard work developed during the past several years. Therefore, we decided to celebrate the World Sea Turtle Day, on 16 June 2020, using the media (radio), much listened to by Santomeans, to spread conservation messages. We joined Sea Turtle Week (www.seaturtleweek.com), a global initiative organized by SEE Turtles, with the involvement of around 100 international organizations. To celebrate this event, Programa Tatô prepared a special program with a 1-2 minute conservation message spot on the radio, a radio soap opera and radio debates, which were launched on the National Radio of São Tomé and Príncipe. Different themes regarding the sea, the five species of sea turtles that occur on the island and their threats were discussed daily during 9 days (8-16 June 2020), starting with the World Oceans Day and ending with the World Sea Turtle Day.

One of the main concerns regarding the fight against Covid-19 at national and international levels, is the lack of personal protective equipment, such as masks and gloves, especially in a country where a significant part of the population is not able to respect the strict confinement measures as they need to work every day, especially in an informal economy, for subsistence reasons.

These economically vulnerable people become even more vulnerable from a health perspective in a pandemic context as they can easily be infected and be a vector for the



spread of the virus. In addition to regular hand washing and disinfection, one of the most useful items is the disposable mask. However, this item has a relatively high cost in the socioeconomic context of São Tomé and Príncipe for the majority of the population, and needs to be constantly changed, increasing daily expenses to protect individuals and their families. There is also the risk of accumulating potentially contagious waste and consequently impacting human health and the environment.

Taking into account the high demand, the actual financial cost of production, and the need for a local and sustainable large-scale production of reusable face protection masks, Programa Tatô joined efforts with Birdlife International and Oikos, Cooperação e Desenvolvimento, to produce reusable face protection masks with African fabric, to distribute for free in the most vulnerable communities located on the buffer zone of the Obô Natural Park of São Tomé Island. So the former women sea turtle traders' group of 17 women started producing these masks, working 24 hours per week on this project in two groups of 8 and 9 women each, and wearing personal protective equipment and following all the prevention measures taken by the national government. This project has presented a great alternative livelihood for these 17 women to make a living while lockdown regulations are still in place. Also, it is a valuable contribution to minimize the environmental impacts of the Covid-19 pandemic by reducing the amount of potentially hazardous waste generated using disposable masks in the country.

Finally, we believe this project has improved the commitment of these 17 women to sea turtle conservation and empowered them as well as our local team with the knowledge, skills and self-confidence necessary to improve their political, social, economic and health status in a

crisis context and showed them that in every crisis there is an opportunity to engage and innovate.

Acknowledgements: We would like to thank Birdlife International and the European Union for funding this microproject. We are grateful to Jean-Baptiste Deffontaines and Suzelle Verant who provided insights for creating this initiative; to Aida Ferreira who provided technical advice on the mask model design; and to all our team for their commitment and their persistent good motivation.

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Photos: Programa Tatô.



La conservation des tortues marines en temps de crise COVID-19 en République du Congo: Renatura Congo s'adapte!

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En République du Congo, la crise du COVID-19 s'est déclarée relativement lentement. Le nombre de cas n'a augmenté que très peu au fil des semaines et des mesures de contrôle ont été prises rapidement. Finalement, la décision de confiner la population nous aura surpris fin mars 2020, à la toute fin de notre saison de suivi des pontes de tortues marines. A la veille du confinement général, nous avons donc dû démobiliser nos équipes basées sur le terrain en urgence. Fort heureusement, il ne restait plus que deux semaines avant la fin programmée de nos activités, ces derniers jours étant consacrés plus principalement au suivi et à l'analyse des nids sur les plages.

L'activité, qui nous a le plus inquiétés pendant cette période d'inaction, aura été l'accompagnement des pêcheurs artisanaux. En effet, depuis plus de 15 ans, Renatura Congo propose à ces acteurs locaux de libérer les captures accidentelles qui surviennent dans leurs filets, en échange du matériel nécessaire à la réparation de l'accroc généré lors du relâcher de l'animal. Nos 2 agents ne pouvant plus se rendre dans les villages, nous ne pouvions donc plus ni réaliser ce suivi ni apporter ce soutien. Nous avons par conséquent choisi de nous appuyer sur les liens de confiance qui nous unissent aux pêcheurs en leur proposant de continuer à libérer les tortues marines. Nous nous sommes engagés à fournir le matériel de pêche dès que la situation serait revenue à la normale. Les chefs de village ont également été mis à contribution pour confirmer les captures et les relâchers. Cette initiative a fonctionné au-delà de nos espoirs. Elle nous a permis tout d'abord de garder un contact régulier avec les 12 villages côtiers que nous suivons et plus de 40 tortues marines ont ainsi pu être relâchées grâce à ce système, et ce avec le quitus des autorités locales. Nous avons même reçu des vidéos via What's app pour corroborer ces remises à l'eau! Nous tenons à saluer ici toutes les personnes qui ont contribué à sauver ces tortues en cette période difficile. Nous le savions depuis toujours, un programme de conservation ne peut se faire sans la participation des communautés, qui sont au contact direct avec ces espèces. Cette crise sanitaire nous en aura donné un bel exemple. Au sortir de ce confinement, nous réfléchissons à présent à maintenir et même à développer ses liens, ce réseau dans l'avenir.

Notre programme d'éducation à l'environnement a également été impacté directement par cette crise sanitaire; nos équipes ne pouvant plus se déplacer dans les écoles ou les villages. Une fois le déconfinement décrété, nous avons décidé, en attendant que les mesures sanitaires s'assouplissent, de nous concentrer sur la réalisation d'un nouveau format d'émissions radio, avec notre partenaire Radio MUCODEC. Plus courte et plus facile à réaliser avec nos moyens techniques limités, cette nouvelle chronique hebdomadaire va nous permettre de continuer à informer le grand public sur les questions environnementales. Parallèlement, nous avons d'ores et déjà commencé à travailler à la création d'animations en lien avec la réduction de la consommation de la viande de brousse en ville. Cette zoonose qui a pris une dimension mondiale vient nous rappeler douloureusement les conséquences désastreuses qui peuvent survenir lorsque le développement humain s'éloigne trop des équilibres naturels. Nos actions de sensibilisation ne manqueront pas de s'appuyer à l'avenir sur cet exemple sinistre, et ce afin de mieux faire émerger cette conscience environnementale indispensable à nos sociétés.

Enfin, cette crise du corona virus, en suspendant les activités de terrain, a donné à l'association l'occasion de se recentrer un peu sur elle-même. Nos équipes ont ainsi pu renforcer leurs capacités, en suivant des formations en ligne (MOOC) en fonction de leurs centres d'intérêt, ou en organisant des formations internes, notamment en informatique. Enfin, l'équipe de direction a pu se pencher sur les pistes de développement de nos activités dans l'avenir, et notamment réfléchir à la façon d'appuyer au mieux l'initiative gouvernementale de

création d'une Aire Marine Protégée dans la Baie de Loango, le premier site d'alimentation et de croissance pour les tortues marines au Congo.

Cette période exceptionnelle n'aura donc pas été complètement vaine pour Renatura et elle aura même permis d'accroître notre solidarité envers tous ceux qui œuvrent à la préservation des tortues marines et de leur habitat au quotidien!

Nous souhaitons enfin remercier ici tous nos partenaires techniques et financiers qui ont su être souples et compréhensifs au cours de cette période exceptionnelle et difficile. Nous pensons notamment à l'Union européenne, US Fish and Wildlife Service, la Fondation Ensemble, et le Rotary Club.

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Impact of COVID-19 on Angola's Sea Turtle Project

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The problem of COVID-19 in Angola emerged almost at the end of the nesting season and did not affect much the monitoring programme of Project Kitabanga (www.facebook.com/Kitabanga), except for the collection of information from each field location in April 2020, which was done by telephone from Luanda. Meanwhile, other maintenance and preparation activities for the new season have been impacted due to the impossibility of current travel along the coast with the closure of internal borders. If the situation continues for a long time, then it may impose some constraints on developing the programme in its entirety for the 2020/2021 nesting season. This programme includes the opening of six more sampling sites, and a greater coverage of environmental education campaigns along the coast that will be carried out as one of the main activities of the project for the next 3 seasons.



COVID-19 – Added Pressure to a Tourism Off-Season

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In the holiday paradise of Watamu, Kenya, residents are heavily reliant on tourism. For most villagers, employment in hotels, transport, fishing and curio-selling are important income sources. Tourism has busy and quiet times, but this year COVID-19 ended the season two weeks early, bringing greater job losses and a shrinking of all activities. Everyone is feeling the pressure. Even those who are known for helping others during the slow times are running out of reserves. The daunting reality is that by the June/July restart of normal tourism season, many of the usual jobs will not be there. Consequently, there is increased pressure on the natural environment.

A great deal more fishing is going on. Fishers and our patrol team are reporting seeing strangers around - people from afar who have come to try their hand at fishing to survive these tough times. Many people who would otherwise be employed in hotels are also heading to the ocean for their sustenance, and many children (who would normally be at school at this time), are fishing in the creeks and shallows. These newcomers are not always aware of approved fishing methods and there is a lot more illegal and makeshift fishing gear in use, including mosquito nets.



Poached turtle remains from anti-poaching patrol in May.

With so many more people competing for dwindling fish-stocks, most fishers are not landing even one full kilogram per day. Compounding the matter is a lower than normal market price – instead of the usual Ksh250 (about \$2.50) per kilogram, fishmongers and the few customers are only paying between Ksh120 to Ksh150 per kilogram. We observed a fisherman working a whole day and only bringing in Ksh50 worth of catch.

Unfortunately, this desperation has also resulted in an increase in turtle poaching, with bits of turtle meat selling for only Ksh20. People are really desperate.

Local Ocean Conservation (LOC) as an organization has also been hit hard by COVID-19 with key donation streams being cutoff such as our volunteer programme, which helps sustain our conservation programmes. Also, many of our private sector supporters have informed us that the funds we usually (and expected to) receive will not be paid, as they themselves are not in a financial position to do so.

With the restrictions on meeting sizes and social distancing, community groups are struggling to host their regular meetings, which help sustain active participation of their members.

With in-person meetings of larger groups not allowed, many have had to be cancelled. In some cases, this has also freed up some time for our team to work through backlogs of work and put energy into internal capacity/skills development.

Other planned programmes had to adapt to online video calls such as the Maliasili and Blue Ventures Marine Conservation Leadership Programme that we are fortunate to be part of. It was meant to be hosted in Tanzania during this lockdown period. We still managed to have

great sessions online, but in-person connections and relationship building are not easy to replicate through a digital screen.

So where to from here?

We are trying our best to keep our conservation efforts and programmes running, with adaptations to the COVID-19 restrictions and realities. We are tackling this situation with two approaches.

1) Immediate COVID-19 interventions and support to the fishing communities we work with.

This is done through our Jobs for Conservation efforts where we provide remuneration for conservation related activities, such as mangrove rehabilitation and beach cleanups.

BIG THANKS to those who have donated to our campaign! To support see [here](#).

2) Longer term interventions.

Here our Alternate Livelihood team is working with community groups and individuals to strengthen their resilience to COVID-19 and future economic shocks. Our key focus is mitigating reliance on the fickle tourism sector and enabling households/groups to produce their own food.

Another activity we're excited to see happen is our COVID-19 relief project in collaboration with A Rocha Kenya. We are employing members of the community to participate in ecological monitoring and social surveys, the information from which will help us plan future support and conservation efforts and ensure we are well informed about what is needed in and around Watamu's villages.

As a final point, what needs a louder voice in the COVID-19 epidemic conversation is the direct link to nature and how we treat (mistreat) wildlife and the natural environment.

It seems that we still do not acknowledge how the health of humankind is intrinsically linked to the health of our natural world.



*Computer literacy training of LOC internal team.
Photo: Local Ocean Conservation.*



A thriving rice crop planted in Magangani.



Impact of COVID-19 on WWF Kenya Sea Turtle Work

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WWF Coastal Kenya Programme (email: ldali@wwfkenya.org)

The WWF Kenya Marine Programme carries out collaborative sea turtle conservation work. Conservation strategies include beach monitoring for nesting activity, nest translocation to protect from predation and tagging of nesting females.

The COVID-19 pandemic has had a paralyzing effect on the day-to-day running of our projects in the Lamu Seascape. In March 2020, the Government of Kenya imposed a nationwide curfew from 7pm to 5am to slow down the spread of the virus. Most of the nesting in our area of implementation occurs at night and the curfew has hindered the nightly beach patrols, which are so essential for ensuring the safety of nesting female turtles and their eggs. Additionally, certain nesting beaches within Kiunga Marine National Reserve (KMNR) do not have a supra littoral zone. Nesting female turtles therefore have no choice but to nest below the high water mark and the consequent flooding during high tide results in little or no hatching success. It is of great concern that we may lose many nests during the coronavirus pandemic due to time-restricted patrols.

Our conservation area faces some of the largest predation threats along the Kenyan coastline. Threats include cats, porcupines, monitor lizards, wild dogs and hyenas, which prey on both nesting females and their eggs. On two occasions, nesting sea turtles have been killed by hyenas. To reduce the loss of eggs and nesting females, the team needs to carry out frequent beach monitoring at night. Unfortunately, this has not been possible this season due to the curfew, which has led to an increase in the incidence of predation.

In recent years, the focus of WWF Kenya has expanded from Kiunga in Lamu to other coastal areas in Kenya. This has been done in a collaborative manner by WWF and partners to ensure a standardized approach to sea turtle conservation in Kenya. As such, this requires continuous capacity building of Turtle Conservation Groups (TCGs) on beach monitoring, nest monitoring protocols and data collection. The schedule to train TCGs has been greatly impacted due to the meeting and travel restrictions in place to slow the spread of the virus.

Participating in international events such as World Sea Turtle Day and World Environment Day will not be possible during the coronavirus pandemic. The events are usually commemorated by joint beach cleanups as well as community outreach activities to create awareness about conservation.

Lastly, most coastal people are now opting for fishing activities since most of the other livelihood opportunities have been affected by the pandemic. The increased fishing effort will likely have a negative impact on marine habitats and result in bycatch of sea turtles and other vulnerable marine species.



Impact of COVID-19 on Sea Turtle Conservation in Tanzania

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The first case of COVID-19 was recorded in Tanzania on 16 March 2020. Unlike other countries in East Africa, the Government of Tanzania did not enforce a lockdown or curfew, but restrictions were placed on group gatherings, schools and universities were closed, and social distancing was recommended wherever possible. As the restrictions came into force, Sea Sense, an NGO that leads sea turtle research and conservation work in Tanzania, quickly assessed the risk of all planned activities to identify those that could still be implemented safely, and those which would have to be postponed or cancelled. A decision was also made to close the headquarters and the staff are now working from home.

Sea turtle conservation in Tanzania is entirely community-based and a network of 36 Conservation Officers patrol nesting beaches at all major nesting sites in the country. Fortunately, the Conservation Officer network has been able to carry on with this activity as the beaches are still accessible and it is a low risk activity due to the remoteness of the beaches. Green turtles nest all year round in Tanzania, but the majority of nests are laid between March and September. Hence, we are in the middle of the nesting season so we are relieved that the monitoring teams can carry on with their vital work and continue to contribute to an existing 20-year nesting dataset in Tanzania. Sea Sense also conducts an annual population census during the peak nesting months of April and May at the two largest green turtle rookeries. The population census is now in its ninth consecutive season and generating important data on clutch frequencies, levels of nest site fidelity, and remigration intervals. Thankfully, this work has also been able to continue. The beach patrols are done in teams of two and on remote beaches, so it is deemed low risk.

The hard work and commitment of the Conservation Officer network has eliminated egg poaching and direct take of nesting females at all monitored sites. As a result, a sea turtle ecotourism initiative has been established, which raises vital funds to support the Conservation Officer network and contributes income to local villages. However, due to the pandemic, tourism has collapsed in Tanzania so although nest monitoring is still ongoing, Sea Sense and local communities will not receive any ecotourism revenue this year.

Data generated by the Conservation Officer network is contributing to the development of a National Action Plan for Sea Turtles. Sea Sense is working in partnership with the Ministry of Livestock and Fisheries and the National Focal Point for the *Indian Ocean South East Asia (IOSEA) Marine Turtle Memorandum of Understanding* to develop the Plan. A national stakeholder workshop was planned for June 2020 to initiate discussions, but this has had to be cancelled. Instead, Sea Sense is conducting stakeholder consultations via the phone in order to gather input for the Plan.

Unfortunately, the Sea Sense education and outreach programme has had to be put on hold. Most of our education work involves large groups such as events on World Oceans Day and World Sea Turtle Day, and community theatre projects. One of the most disappointing decisions to make was the cancellation of a school visit to a turtle nest hatching event. The excursion was a prize for the winning pupils who took part in our 'Marine Wildlife Conservation and Environmental Leadership' campaign at the end of last year.

Sea Sense is responding to the pandemic by utilising the Conservation Officer network as a way of sharing health and safety guidance with coastal communities so that they understand how to take appropriate measures to protect themselves and their families. There has been a lot of misinformation in Tanzania so the presence of a well-respected network of Conservation Officers on the ground has been invaluable in communicating accurate health advice. We also held discussions with donors to explore the feasibility of reallocating funds from education and

outreach activities so that handwashing and sanitation facilities could be purchased for coastal communities. The requests were approved, and the materials have been purchased and installed at places where large groups gather including fish landing sites and fish markets.

Our main priority is keeping the Sea Sense team safe and well, together with the communities we work alongside. We know the school pupils were very excited at the prospect of seeing turtle hatchlings for the first time, so hopefully it will happen in the not too distant future. In the meantime, we are glad that our core sea turtle research and monitoring programme is still able to continue. It has been a great nesting season so far!



Sea Sense Conservation Officer supplies hand washing facilities for his community. Photo: Omari Kigume.



Update from Mozambique on the Impact of COVID-19

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Overall, the work in Mozambique has not been affected that much by the pandemic.

The nesting season in the south of Mozambique finished in March 2020, just before the pandemic. However, the nesting season is underway up north, and a bigger threat to turtle conservation is the highly volatile security situation in Cabo Delgado, which has meant the closure of tourism operations that supported turtle work e.g. Vamizi Island.



Le COVID-19 et les mortelles pollutions marines

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Plus de 8,3 milliards de tonnes d'objets en matière plastique ont été produits dans le monde au cours des 70 dernières années. C'est un chiffre extrêmement inquiétant en ce qui concerne la conservation et la protection de la faune marine. Une étude publiée par le Forum économique mondial a révélé que 8 millions de tonnes métriques de plastique entrent dans l'océan chaque année. On connaît bien maintenant les risques digestifs que présentent, pour les tortues marines, les différentes formes de matières plastiques en mer.

Depuis le début de la pandémie mondiale de Covid-19, il y a eu une augmentation de la production d'équipement de protection individuelle (EPI) pour les personnels des hôpitaux et le public du monde entier pour se protéger des infections respiratoires par contamination du coronavirus. Au résultat, des centaines de milliers de gants jetables, de masques chirurgicaux et de flacons vides de désinfectant pour les mains abandonnés négligemment un peu partout, y compris sur les plages, dans les estuaires et dans les rivières. Cette augmentation subséquente de l'utilisation d'EPI depuis 3 mois a un impact énorme sur l'environnement et a été qualifiée de "pollution Covid". Beaucoup de masques chirurgicaux sont en polypropylène, un dérivé du pétrole; il est estimé que cette matière met plus de 400 ans à se décomposer.

Ce qui est particulièrement inquiétant, c'est l'impact évident que les EPI rejetés vers la mer auront sur la faune marine, comme les tortues, lesquelles, en prenant pour des proies les gants en latex aux couleurs vives ou les masques blancs, les avaleront et feront des occlusions intestinales, avec de gros risques de morbidité et de létalité. Risque aussi, pour les juvéniles de passage de la tête ou d'une patte dans une ou les deux cordons du masque.



*Les pollutions par les objets en plastique des plages de ponte et des habitats marins des tortues marines sont déjà énormes sans y ajouter une pollution supplémentaire par tous les EPI dus au Covid-19. Ici une plage de nidification de *Chelonia mydas* et *Caretta caretta* en Mauritanie (©J. Fretey).*

Les tortues marines ne craignent pas le virus Covid-19 de façon infectieuse, ce virus ne semblant s'attaquer qu'aux animaux à sang chaud.

Alors que de multiples efforts sont fournis partout dans le monde pour sauvegarder les dernières tortues marines de la planète, un objet anodin, le masque chirurgical, pourrait rapidement devenir un risque supplémentaire et très important quantitativement d'augmentation de la mortalité des tortues marines.

Plus que jamais, la vigilance des conservateurs de la nature doit être forte pour enregistrer tous les accidents survenus aux tortues, et pour tenter d'extraire ces masques du milieu marin et sensibiliser le public à ne pas jeter les masques et les gants usagés n'importe où.

L'ONG Chélonée espère que la raison va l'emporter et qu'avec des campagnes de sensibilisation, les humains comprendront que se protéger doit également intégrer la protection du monde marin.

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INSTRUCTIONS FOR AUTHORS

The African Sea Turtle Newsletter (ASTN) is a free, bi-annual international electronic publication about the biology and conservation of sea turtles in Africa, and the stories of people who work with sea turtles on this vast and diverse continent and its offshore islands. This publication hopes to increase communication and collaborations among all those working with sea turtles in Africa –scientists, conservationists, policy-makers, project managers, community members, students, professors, everyone!—as well as share news with the international sea turtle community.

Contributions can range from original scientific papers and natural history observations to opinions, anecdotes, local myths, taboos, pharmacopeia, and legends, as well as field experiences, workshops, education and awareness activities, and announcements. We will accept and publish contributions in English, French, Spanish, and Portuguese so that everyone can express themselves in the language they most feel comfortable.

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