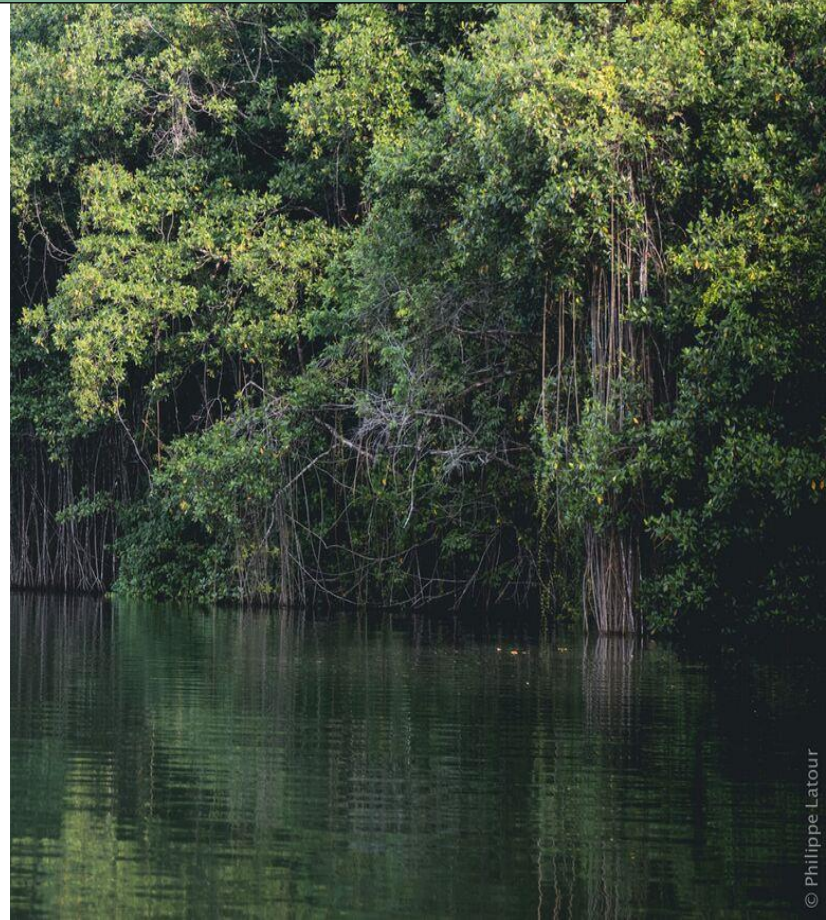


# The Rising...TIDE

Toledo Institute for Development and Environment

## Annual Report 2018



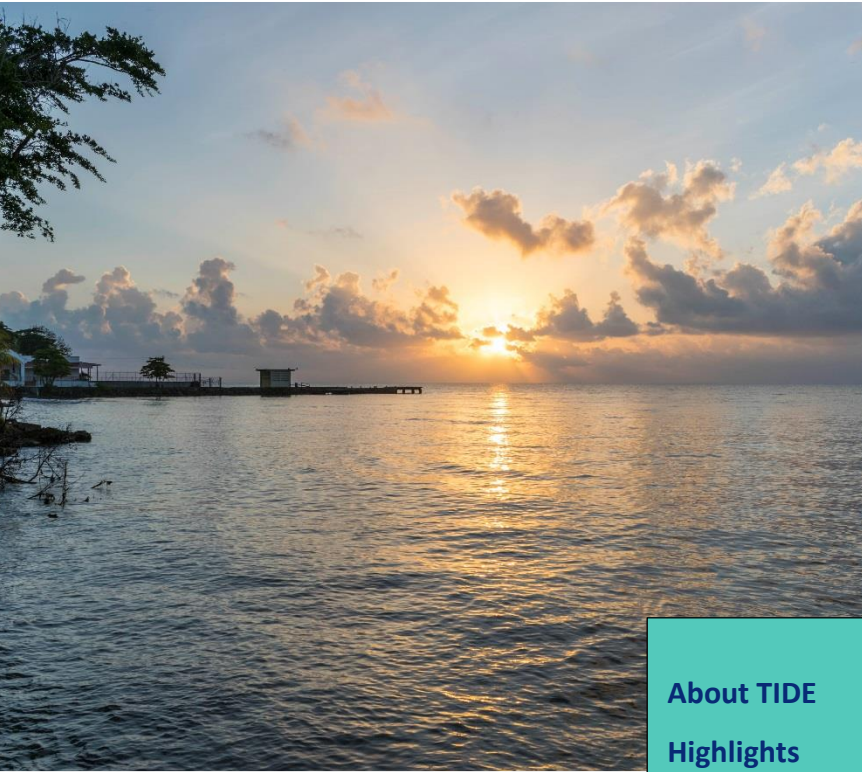
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**TIDE**

Leading Community Participation in Conservation



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## Vision:

**Toledo's healthy ecosystems support biodiversity, communities and sustainable development.**

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## Mission:

To engage stakeholders in the sustainable management of natural resources within the Maya Mountain Marine Corridor of Southern Belize for the benefit of all.





## About TIDE

TIDE is safeguarding biodiversity and natural capital in one of the most pristine parts of the Mesoamerican Biodiversity Hotspot, the Maya Mountain Marine Corridor of southern Belize. Recognizing the interdependent nature of this landscape and its people, TIDE works with stakeholders to implement holistic landscape-level strategies to preserve the natural processes and habitats that sustain biodiversity and people. Within the Maya Mountain Marine Corridor, TIDE co-manages three protected areas: Port Honduras Marine Reserve, Payne's Creek National Park, and the TIDE Private Protected Lands with the government of Belize. These areas protect at least 39 species of international concern, including jaguars, yellow-headed parrots, howler monkeys, Baird's tapirs, West Indian manatees and hawksbill turtles. We are committed to building local capacity for sustainable natural resource management, and having community participation as a strong feature in all five of our program areas: Education & Outreach, Research & Monitoring, Resource Protection, Financial Sustainability Management and Community Development.

Education & Outreach



Research & Monitoring



Resource Protection



Financial Sustainability Man.



Community Development



# Highlights of 2018

## Resource Protection:



A look at the main developments and achievements of the 3 areas impacted by resource management activities. Details of the capacity building that has enhanced the performance of the brave individuals at the forefront of the protection of ecosystems and biodiversity.

## Research and Monitoring:



Latest findings on key species within TIDE's protected areas. This year's statistics include information on spiny lobster, conch, sea cucumber, coral health and the yellow-headed parrot.

## Education & Outreach



TIDE's Education and Outreach Program was once again active with numerous activities! This year included the award-winning Fresh Water Cup, Summer Camp, Reef Week, and school visits among other activities.

## Community Development



Once more, the organization successfully allocated funding to secure the continuation of the much-appreciated scholarship initiative. The TIDE Fish Fest was rebranded to an even more inclusive – Conservation Fest!

## Financial Sustainability



TIDE's financial sustainability program sought new tour opportunities while also improving on the relationships it currently enjoys with a number of international parties. It continues to fund TIDE conservation efforts and is investing in accommodation facilities to further its tourism offerings.

## Executive Director's Remarks



Big Falls Retreat (TIDE Private Protected Lands)

Another year has passed and I am happy that we were able to maintain momentum in achieving our goals in protected areas management and community development, while making preparations to increase self-generated income that is re-invested into protected areas management. Along with the implementation of numerous projects, we focused on infrastructural development at the Payne's Creek National Park and the Big Falls property on the TIDE Private Protected Lands. Our goal was to increase visitation and provide conservation related field learning experiences to visiting families and groups. We are aware of the numerous attractions within our protected areas and know that exposing youth in the field, will help to enhance stewardship of the environment. Therefore, with funding from the Oak Foundation through MAR Fund, we invested in the development and marketing of field learning experiences within our protected areas and primary communities we work with. This publicity has resulted in new requests from university groups and families for field learning experiences and service-learning projects that benefit our communities. Before the end of the year, we signed a one-year contract with Ecology Project International to offer opportunities for diverse marine and terrestrial ecology field-based learning activities to local and international groups. It is expected that through these learning experiences, Belizean youths will be motivated to take active roles in the conservation of our protected areas.

Our staff has proven that they have a wealth of knowledge and skills to share during field experience learning and they have been extremely helpful in ensuring successful field visits. This program does not only benefit TIDE's achievement of conservation goals, but also benefits community members who obtain part time employment during field visits. Obviously, we would not be successful without the ongoing commitment from our board of directors and staff. We could never achieve all we do without the financial support from our donors who believe in the work we do.



# Resource Protection



## Protected Areas

### Payne's Creek National Park

It was a very busy year for the staff of Payne's Creek National Park (PCNP). The rangers were engaged in fire management, law enforcement, research & monitoring and capacity building. With funding from the Protected Areas Conservation Trust, Mass Audubon and the Overbrook Foundation, the staff conducted prescribed burns in Deep River Forest Reserve. They burned some 4000 acres to meet specific objectives and provided basic and advanced fire management training to buffer communities and staff from protected areas co-managed by TIDE, Ya'axche' Conservation Trust, Belize Audubon Society and the Forest Department. Advance Fire Training was done with personnel from Programme for Belize, Rio Bravo Conservation Management Area buffer communities, and the Forest Department.

Aside from fire management training for protected areas, PCNP staff was engaged in fire management training for Sittee River Wildlife Reserve and the Belize Sugar Industries (BSI), along with some of the cane farmers affiliated with BSI. The team also played a key role in assisting with burn plan development for the Pine Lumber Company, so prescribed burns can be conducted in their Mountain Pine Ridge concession. Through these initiatives, the crew has been building fire management capacity at the national level.

To improve enforcement and other management activities, funding from Mass Audubon, Overbrook and the Summit Foundation facilitated the implementation of SMART as a means of collecting enforcement data. The use of the system commenced in March and the information is being used to target more focused patrols, especially in the dry season when the access road is in good condition. Annually, the dry season is a popular time for people to enter into neighboring Deep River Forest Reserve (DRFR) to conduct activities that often have a negative impact on the park such as hunting and lighting of fires. For the year 2018, a total of 191 patrols, covering 9006 kilometers with an accumulation of ~1503 hours, were conducted. The patrols were carried out as either routine, follow-up, reconnaissance, in connection with TIDE Tours Ridge to Reef Expeditions, to monitor biodiversity or for special purposes.

Research and monitoring at PCNP has included biodiversity monitoring using camera traps, focusing on jaguars and jaguar prey. There has also been “fire effects” monitoring on 28 plots scattered over PCNP, DRFR and Swasey Bladen Forest Reserve, focusing on pine and palmetto. Six of the transects were done with University Belize (Environmental Research Institute) students, concentrating on fire effects on vegetation cover. Yellow-headed parrot population surveys were also carried out; roost counts 3 times annually, and nest success monitoring, with assistance from Fabio Tarazona. Mr. Tarazona was a student from New Mexico State University; he and his crew did chick health assessments with the Belize Bird Rescue’s (BBR) veterinarian. Working along with BBR, TIDE continues to ensure valid contributions in the management of this endangered species. Additionally, the PCNP staff has also been collaborating with the Crocodile Research Coalition on the national crocodile survey.



Lastly, continuing to invest in its human resources and capacity building, TIDE trained several members of the Payne’s Creek staff. These capacity building opportunities included: Special Constable Training, Green Laws Training, Wildlife Tracking and Bird Language Training, Fisheries Regulations Training, Ranger Skills Training and training on the use of the Spatial Monitoring and Reporting Tool (SMART) software.



## Port Honduras Marine Reserve

Toledo's Port Honduras Marine Reserve was established in 2000. Management of this rich marine resource has undergone a number of changes and developments to better address sustainability and protection. This year proved to be yet another year of growth for the protected area. With a field staff of 5, a total of 389 patrols were conducted. As a result of these patrols, 3 arrests were made and successfully prosecuted, 3 verbal warnings issued, 1 written warning issued, and 6 gill nets along with a longline were confiscated from within the reserve. Most of the patrols conducted were joint operations with the Belize Coast Guard, and personnel from other protected areas managed by



TIDE. Through the EU Grant, rangers received 2 spotlights, 1 night vision binoculars, 2 laptops and regular binoculars, which have made patrols safer and more effective.

Along with team building activities, the PHMR staff took part in a number of trainings for the year, including: Ranger Skills Training, Fisheries Regulations Training, Managed Access Regulations and Log Book Training, Special Constable Training and participated in a Fisheries Enforcement Workshop.

Through the European Union project "Restoring Fisheries in the Mesoamerican Barrier Reef System" and the Environmental Defense Fund, PHMR staff has contributed to the efforts of TIDE's Managed Access activities as well as laying the groundwork for a bright future in Managed Access nationally. Fishers continue to attend the fishing forums which are an important means of dialogue between fishers, managers and co-managers. The first forum was held in May 2018 and the second in November. The primary strategy of managed access engagement for PHMR continues to be 'one on one' house visits. However, frequent stops are still being made to the fish market where the dialogue remains vibrant and energetic.



Research and Monitoring continues to be an integral part of the management effectiveness of PHMR. Monitoring for the year 2018 included lobster surveys, conch surveys, sea cucumber surveys, coral health surveys, reef fish surveys, reef benthic surveys and coral bleaching surveys.

In 2018, the rangers through the Spatial Monitoring and Reporting Tool (SMART) logged over 333 vessels in the reserve. Of these vessels 162 were commercial fishers, 67 were recreational tourism vessels, 80 recreational fishing vessels and 24 other vessels either transiting the area or conducting other activities. Approaching the new year, the team remains ever committed to the task of successfully co-managing Toledo's PHMR.



## TIDE Private Protected Lands



Management of the TIDE Private Protected Lands (TPPL) for the year 2018 entailed a number of activities. Those conducted during the course of the year included the continuation of the reforestation project targeting the riparian zones of the Rio Grande River. These zones adjacent to the TIDE private lands and buffering water ways were maintained through the tending of the trees previously planted and the planting of new trees. Such sites impact the biodiversity of TPPL, Rio Grande River and ultimately the Belize barrier reef system. Additionally, TIDE's ranger staff continued with efforts in support of the organization's Education and Outreach Program. They shared information with land owners and farmers about the importance of retaining a 66 feet buffer zone on the river banks, particularly in the areas along San Marcos to Jacinto Creek where there is notable de-forestation. Aiming to reduce infractions, printed information sheets on hunting laws focusing on 'open' and 'closed' seasons for hunting of various game species were distributed, as well as information on the selling of game meat. Additionally, information on the hunting of Hicatee was also shared with all those encountered during house-to-house visits in Big Falls, Hicatee, and San Marcos Villages.

TIDE collaborated with the University of Belize and with a student who functioned as a GIS intern, created a comprehensive map of the lower reaches of the Rio Grande River from the Big Falls Bridge to the Caribbean Sea and mapped locations of riparian reforestation activities carried out during the past 6 years by TIDE.

An important aspect of TIDE's conservation efforts is the Resource Protection Program. TPPL staff executed regular patrols: land-based, river and coastline patrols. The task was assisted by SMART technology which has been incorporated into patrols for better data collection and reporting. The integration of SMART at TIDE's co-managed terrestrial protected areas commenced with training of the newly hired 'head ranger' of TPPL; a training borne of a joint effort with Belize Audubon Society and Ya'axche Conservation Trust in late 2017. SMART basic training for the remaining rangers was in 2018 and the system is currently being used in the field by all ranger staff. In addition to capacity building, equipment such as flash lights, rubber boots, GPS and new uniforms were obtained to assist with patrols and surveillance.



Funding was received to improve the ranger base site so it would be able to accommodate overnight student groups interested in assisting with activities on the private lands. Two of the 3 planned structures (bunk houses) were completed in October 2018. Both buildings have the capacity to accommodate 14 persons. During the course of the year, park rangers hosted a total of 18 students and 3 teachers at TPPL. They gave presentations on TIDE and their specific protected area, took students on a hike on the Dan Campbell Trail and conducted birding around the TPPL compound. Continuing with the organization’s culture of team work, TPPL staff participated in 3 prescribed burns in Deep River Forest Reserve along with the Southern Belize Fire Working Group in February, and assisted at Payne’s Creek National Park with wildfire suppression. There was no need for fire management within the TPPL itself.





Research and Monitoring



### Community Researchers

The Community Researcher Training Program (CRTP) has continued to change the lives of many locals in southern Belize. Since its initiation in 2011, TIDE has led community members from various stakeholder communities through its internationally acclaimed Community Researcher Training Program to prepare them for careers in conservation and resource management. The CRTP is comprised of scuba certification(s) and scientific fieldwork, and is taught over three progressive levels of training. Participants receive comprehensive training in environmental science, coral reef ecology, land-sea interconnectivity, impacts of human activities on the natural environment, data analysis, advanced ecology theory and much more. Three more local youths have been certified as TIDE community researchers (more than 30 to date) and TIDE has also provided advanced skills training to two experienced community researchers, helping to develop the next generation of Belizean conservationists.

In other good news, PHMR coral colonies showed potential recovery and resiliency to coral bleaching after the unprecedented country-wide coral bleaching event of 2017. Recovery rates inside and outside PHMR were greater than 40% in 2018.



## Queen Conch

Queen conch (*Lobatus gigas*, originally *Strombus gigas*) is a large gastropod and an important commercial species throughout Belize. Once a prevalent species with high population densities, queen conch has demonstrated drastic population decreases throughout the Caribbean. Since 2009, TIDE has been monitoring population sizes throughout PHMR to determine whether the species is being fished sustainably. Monitoring of queen conch takes place in PHMR twice each year after the conch season closes and in September, just before the season opens again. Annual conch densities increased slightly in 2018 in comparison to 2016 and 2017 unprecedented lows. However, they continue to be well below healthy population levels and minimum mating thresholds, thus limiting reproductive success. This trend has been observed for the past 5 years. Shell length continues to be used as an indicator for maturity of the species, with the catch minimum shell length at 7 inches (~17.8 cm). The annual PHMR mean conch length was  $\geq 20$  cm, however, previous studies have shown that shell length and sexual maturity can vary by region and that lip thickness is a better indicator to determine the maturity, and thus fecundity, of the species. The Toledo Institute for Development and Environment continues to work with the Belize Fisheries Department in Managed Access assessments and proposed management regulations of this very important commercial species.





## Sea Cucumber

Sea cucumber (*Holothuria mexicana*) has been an important commercial species within Belize during the last decade. This group of species is also vital to coral reef health as they filter harmful bacteria out of the water, thus increasing water quality. Since 2011, TIDE has been monitoring the sea cucumber population in PHMR to ensure the preservation of the species. Sea cucumber monitoring continued in 2018 with surveys conducted in July and November. The annual sea cucumber population was similar to 2017 population levels at ~18 sea cucumbers per hectare, which is still well below healthy population levels. This could be due to a number of issues including lack of mature spawning stock causing poor recruitment and/or illegal fishing in PHMR. Due to overfishing and serious declines in population levels, a moratorium on sea cucumber fishing was enacted in 2017 by the Belize Fisheries Department. The research and monitoring department at TIDE is currently studying the efficacy of the sea cucumber moratorium. With the continued closure of the sea cucumber fishery, TIDE hopes this important commercial species will show substantial recovery soon.



## Spiny Lobster

Lobster (*Panulirus argus*) is an important commercial species in the PHMR and TIDE has been monitoring the population since 2009 to ensure fishery sustainability. The annual lobster population in 2018 was similar in both the GUZ and RZ at ~8 lobsters per hour with mean carapace length at 7-8 cm. Although the population size was the same in the RZ, this is a decrease in the GUZ from 2017 values. Though lobster populations are under pressure, these values are greater than the low numbers documented in 2016 and appear to be relatively stable. TIDE aims to study the impacts of lobster shades on juvenile lobster and fish populations and diversity within PHMR and will continue to explore the possibility of increasing the size of replenishment zones. These endeavors will aid in the understanding of population trends of lobster and sustainability of the fishery.





## **Coral Health**

There was an unprecedented bleaching event throughout Belize in 2017. The severity of bleaching differed from North to South of Belize and inside and outside of PHMR (i.e. coral bleaching was more prevalent outside the marine reserve than inside.) The least affected corals country-wide was in PHMR. TIDE researchers continued to monitor the bleaching event into 2018 and observed a substantial decrease in coral bleaching inside and outside PHMR, showing potential coral recovery, and thus coral resiliency. TIDE will continue to assess coral reef health within PHMR with the overall goal to aid in coral reef management and thus resiliency in the future.

## The Yellow-headed Parrots of Belize

As part of the Maya Mountain Marine Corridor, Payne's Creek National Park (PCNP) ensures the connectivity of ridge to reef ecosystems. The pine woodlands and savannas of PCNP are important habitat for a number of species of concern such as the jaguar, tapir, and particularly the yellow-headed parrot.



The yellow-headed parrot (*Amazona oratrix*) is an IUCN red-listed species and is considered in danger of extinction across its range. The distribution of the species *Amazona oratrix belizensis* is primarily restricted to the coastal pine savannas found throughout eastern Belize. Nesting behavior is initiated in January and February, with 2-4 eggs being laid by March. Nest monitoring for this year was conducted from March 22<sup>nd</sup> to June 3<sup>rd</sup>. Monitoring was conducted in the Maya Mountain Marine Corridor within Payne's Creek National Park, Deep River Forest Reserve, and Bladen Nature reserve. Additional nests were found in Swasey Bladen Forest Reserve.

A total of 31 nests were located in 2018 and overall nesting success was 32% with 58% of nests located in boxes. The 2018 nesting success was 21% in natural nests, and 41% in artificial nest boxes. A total of 83 eggs were discovered. Of these eggs, 43 hatched and 21 of the young fledged. The highest cause of nest failure was predation. This included predation of the eggs or nestlings and/or predation of a parent. Rarely do parents abandon a nest, yet two nests were abandoned during this year's season.

In addition to natural nest failures such as predation, a total of 2 nests were poached in 2018, one in a natural nest and one in an artificial nest box. The poached nests were located in Swasey Bladen Forest Reserve and Deep River Forest Reserve. When chicks were determined to be in danger of being poached, they were extracted and transferred to the Belize Bird Rescue where they were raised, rehabilitated, and released, in the same area where they were extracted the previous spring. A total of 23 chicks were extracted in 2018. In 2018, 41% of surviving chicks came from natural nests, while 59% were from artificial nest boxes. Collaboration with the Belize Bird Rescue has been invaluable in helping at-risk chicks, due to poaching and health issues.

Aside from natural predation and habitat loss, poaching is the largest threat to nesting success of the yellow-headed parrot in the Maya Mountain Marine Corridor. Educational outreach programs work with nearby communities to



address poaching issues, as well as sharing alternative livelihood programs and these are essential in reducing the amount of poaching that occurs in the protected lands. Based on research and observations, it has been recommended that patrols of these areas be increased and conducted jointly with support of the Belize Forest Department.

## Education and Outreach

### TIDE Freshwater Cup 2018 CARSI Funded program



Primary and secondary schools in the Toledo District continued their collaboration with TIDE in the holistic development of children ages 8-17, with 44 institutions in participation in 2018. This has been the second year the Central America Regional Security Initiative funded the Freshwater Cup Program (FWC) as a means of tackling the root causes of crime and violence in the Toledo district. A total of 1,605 students were directly involved in the football tournament for this program. All schools were given the opportunity to improve their environment in some way or to share important tips on healthy living and drug awareness during this project, resulting in 24 environmental projects implemented by 20 primary schools and 4 high schools. The 30 primary schools who participated in the Esteban Assi Cup (EAS) - expansion of Freshwater Cup, engaged their communities through drug awareness/healthy living poster presentations. The Freshwater Cup 2018 program had 23 female teams and 24 male teams participating in the tournament with each team having 15 participants collectively and ~705 students, directly involved in the football tournament. Esteban Assi Cup had 30 female and 30 male teams participating, with 15 participants on each team. That made for the EAC having 900 students, directly involved in the program.



There were 44 schools engaging in improving the environment or focused on healthy living or drug awareness. Twenty primary schools and four high schools addressed environmental issues at their school or within their communities. The environmental projects were implemented after being vetted and approved by the TIDE team. Projects focused on improving eco-parks, recycling of materials collected in the environment, planting of trees, clean-up campaigns, environmental awareness campaigns and the erecting of signs in designated areas. While the projects were being carried out, they were monitored and a schedule of the games was shared with the teachers and principals of the participating schools. Students worked on the projects while at school with support from their parents and teachers



to ensure successful completion. A team was tasked with evaluating the projects based on a set criterion. All projects had wonderful proposals and plans to improve the environment.



Thirty Roman Catholic schools engaged students and their communities through healthy living or drug awareness presentations. The schools' educators worked with their students to design informative posters on either drug awareness or healthy living. Composition of the posters were integrated in the Health and Family Life Education, Arts and Craft, Social Studies or Science lessons of the schools involved. Schools were able to merge the FWC program with their existing curriculums, facilitating outdoor lessons for children engaged in the program. The evaluation team travelled to all 30 primary schools and graded as students presented their posters and educated their audiences. This aspect of the project expanded on the presentation skills and knowledge of all participants. St. Joseph RC School, St. Peter Claver RC and Little Flower RC Schools shared the most attractive and informative posters which were selected from the 30 entries by the judges. These schools were acknowledged for their creative sharing of important facts on drugs and healthy living. Most posters stressed the importance of having a healthy body but also gave recognition of the need for connectivity with nature, to be whole.

As it pertains to the sporting aspect of the program, the Freshwater Cup tournament allowed children the opportunity to travel to different school grounds and football fields, where they displayed their prowess and enthusiasm for the sport. The fields were inspected to ensure that they were safe and properly demarcated so the children were able to play unhindered. Each team got the opportunity to visit and play on three separate fields. Students and teachers embraced the chance to meet and socialize in different environments as their teams competed for the win.

During field trips to other communities, each of the teams displayed commendable civic pride by leaving no harmful waste items behind that would affect the community. Clean up campaigns were also done within the areas if there were signs of littering. This proved to be an important lesson in environmental responsibility for the youths.

At the end of the FWC tournament, three male and three female teams were acknowledged for their team effort which resulted in their success for the 2018 FWC. Finals were held at Cattle Landing football field with the participation of St. Peter Claver Females and Little Flower Males from Zone 1, Big Falls RC Females and San Pedro Columbia RC Males from Zone 2, Golden Stream Gov. Females and Medina Bank Gov. Males from Zone 3 and Our Lady of Bella Vista Male and Females represented Zone 4. Trophies and medals were given to first, second and third place finalists. Players went home with gold toned memorabilia at the end of the day. There were seven schools that received soccer jerseys for 2018. The recipient schools were selected based on need.

The Esteban Assi Cup had its final games at Big Falls football field with six males and female finalists. The day had San Vicente Males and Santa Elena Females from Zone 1, San Pedro Columbia Males and Big Falls Females from Zone 2,

St. Peter Claver Males and Females from Zone 3, Sunday Wood Males and Females from Zone 4, San Benito Poite Males and Aguacate RC Females from Zone 5 and Dolores RC Males and Machakilha Females from Zone 6. Students travelled for miles to get to Big Falls where they all shared in the highly anticipated day. At the end of the tournament, first place went to San Pedro Columbia Males and Big Falls Females, second place went to San Benito Poite Males and Aguacate Females and third place went to San Vicente Males and St. Peter Claver Females. Each participant was given a medal for effort and teamwork.

The tournament was a successful endeavor with support from the communities and teachers that made the extra effort to have their students involved.



## TIDE Annual Summer Camp 2018



(Picture above from left to right; San Marcos Campers, Big Falls Campers and PG Campers.)

The theme for 2018 summer camp was “Beat Plastic Pollution, if you can’t Reuse it, Refuse it”. This year’s success was made possible with funding from Mass Audubon. Camp was conducted at three locations: Punta Gorda, San Marcos and Big Falls. There were 78 campers engaged in fun activities from July 16-27, 2018. Punta Gorda had 38 participants comprising 18 females and 20 males. San Marcos had 20 campers with 13 males and 7 females. Each day was planned with the realization that students needed to learn valuable information on the resources managed by TIDE, ways to care for the environment and what they can do to address current environmental issues. Students also had the opportunity to address the coastline debris that washed up on a daily basis. There were 15 hardworking volunteers who made the 2018 camps, successful. San Marcos and Big Falls had 4 facilitators each and Punta Gorda had 7 facilitators. A familiarization workshop was conducted on July 13, with the facilitators and they were provided with resources to carry out camp activities. The Punta Gorda camp had the wonderful support of three JICA volunteers- Ryoko, Tamami and Masuki. All the Japanese volunteers assisted by focusing on recycling plastic during camp at three locations.

While conducting the camps, it was emphasized that healthy snacks would be provided to those in attendance on a daily basis. Each camper was given a camp T-shirt with his or her art pieces added during art sessions of camp. At the end of camp, each group was given the opportunity to visit Payne’s Creek National Park, Port Honduras Marine Reserve and TIDE Private Protected Lands. Campers had fun wondering at nature within the three protected areas. They enjoyed their trip to West Snake Caye where they snorkeled among fish and corals in that beautiful patch of Port Honduras Marine Reserve. The participants of 2018 camp are eager to return for camp 2019 and the



organization's facilitator hopes to have a blast with them in the future. TIDE is hoping to have other communities engaged in future camp activities to widen areas of impact, in order to further the sensitization of young minds towards the environment and the importance of protected areas.



Picture above showing indoor camp activities.





## Outreach and Awareness Campaigns



The year 2018 started with networking between different partners, in an effort to have a greater impact on the lives of our stakeholders. The National Drug Abuse Control Council, Community Policing Unit and OCEANA were eager to be on board for visits to schools and communities in Toledo, so as to raise awareness of various social and environmental concerns. These concerns varied from domestic violence, child abuse, drug abuse, waste management, resource protection and other school-related issues brought up by administrators of institutions. During trips we were able to spend the day sharing facts and plotting a positive way forward for the future generations. They welcomed the entire team to their classrooms. All schools in the Toledo District were visited through the organization's program outreach efforts in 2018. TIDE was the main organizer of the school visits and provider of transportation. The other organizations had very limited means of getting their messages disseminated, TIDE was able to secure funding though, which allowed the interested parties the opportunity to join in school visit initiatives.



Picture above showing WPC Aretha Gordon and Martha Coc from NDACC.

Reef Week activities, School Open Days and fairs were also great opportunities for TIDE to conduct outreach, so information booths were frequently present. Reef week activities spearheaded by TIDE involved all 24 Freshwater Cup schools sharing ways to address plastic pollution within their school setting. Presentations were conducted at schools on the importance of our country's reef and the role children can play to ensure the reef remains intact for future generations. The final day of reef week activities was held in Dangriga. TIDE was present and participated in the event with an information booth, through which they were able to share the organization's work with the residents of Dangriga.



At Toledo Community College Career Fair, TIDE's Education Coordinator also shared with students a bit about the organization, its future plans and also encouraged them to become volunteers with TIDE. International environmental events celebrated for 2018 were World Water Day, World Ocean Day, River and Waterways Day, and Earth Day among others. For the annual TIDE Conservation Festival; the first day was Environmental Awareness Day. During the first day of events for the festival, schools from Punta Gorda and all Fresh Water Cup schools participated in associated activities. The schools based in Punta Gorda worked on addressing plastic pollution by creating songs, sculptures and recycled products. The University of Belize's Natural Resource Management – Waste Management Class worked on a sculpture contest with plastic and waste materials. Toledo Community College (TCC) encouraged their students to compose jingles focused on the theme, "beat plastic pollution". A number of primary schools and members of the general public visited the displays at the Father S.J Ring Parish Hall. Young artists from TCC sang the winning jingle to an audience gathered at the TIDE compound for the festival's final day of events. It is TIDE's hope to have an even bigger, more successful event in 2019.

Picture below showing outreach at career fairs and schools.



### Conservation Festival 2019



The Toledo Institute for Development and Environment (TIDE) celebrated its annual Fish Festival, re-branded as TIDE Conservation Festival, focusing on the theme, *'Beat Plastic Pollution! If you can't reuse it, refuse it!'* on 12<sup>th</sup>–14<sup>th</sup> October, 2018 in Punta Gorda Town! The TIDE Conservation Festival is a celebration and recognition of the organization's conservation efforts in southern Belize, increasing awareness of TIDE's work. It functions as an opportunity for stakeholders, including fisher folk, artisans, restaurant and hotel owners to generate income and is a great way of welcoming the 2018 tourism season.

For the first time in 2018, TIDE held an informative exhibition that provided an opportunity for students of the University of Belize - Toledo Campus, and high schools in southern Belize, to display creativity and innovation in highlighting the theme for the festival. The weekend continued with a cocktail fundraiser on Saturday and ended with the grand finale, a day of activities at the TIDE compound on Sunday. TIDE's staff and Board of Directors were able to actively engage with community members, schools, stakeholders, partners and others, to share on the passion that drives the organization.

The overwhelming crowd at TIDE Conservation Fest 2018 proved that this year was a success. The Toledo Institute for Development and Environment (TIDE) would like to extend its sincerest gratitude to all the donors, participating conservation partners, schools, staff and volunteers who contributed to the success of TIDE's Conservation Festival.



## TIDE Scholarship Report 2017-2018



Through the gracious donations from the staff at Joppa Flats (Mass Audubon Society), volunteers and visitors, scholarship opportunities were once more offered by TIDE to needy students of the Toledo District in Belize. For the school year 2017-2018, funding donated to TIDE assisted 42 secondary students with book scholarships towards their education. We are happy to report that 9 students from the scholarship program graduated in June 2018 and all other students, but two (who we are unable to contact), passed and were promoted. The schools that the students attended included Toledo Community College, Providence High School, Claver College Extension, Belize Comprehensive School, Georgetown Technical High School, Corazon Creek Technical High School, Red Cross, Julian Cho Technical High School and Independence High School.

All the students are from communities TIDE works with, inclusive of Punta Gorda Town, Cattle Landing, Monkey River Village, Punta Negra Village, San Miguel Village, San Marcos Village, San Antonio Village, Bella Vista Village, Bladen Village and San Pedro Colombia Village.

TIDE expresses heartfelt thanks to Joppa Flats and Mass Audubon Society who helped to fundraise for this great cause! They have assisted in making secondary education possible for many students committed to making a better life for themselves and their families, so they'll be able to contribute to the development of Belize.





## Financial Sustainability Management

### TIDE Tours

In 2018, TIDE's Financial Sustainability Department was initiated as a limited liability company with its own board of directors. Managed by a fulltime staff of 3, TIDE Tours Company continues to support communities and conservation through responsible tourism. The business has worked on extensively marketing Toledo and TIDE Programs internationally by attending several Trade Shows, Educational Travel Conferences and improving its online presence. It continued to host new and repeat groups and visitors, built new and stronger relationships with those in the travel community and hosted familiarization tours for new and potential travel agents. TIDE Tours has invested over 30% of its 2018 profits into infrastructural development in the protected areas, to be able to host groups within the parks and increase revenue to TIDE. Additionally, TIDE Tours trained 1 park ranger and 1 community researcher to become Tour guides, both of whom will be able to work with new groups that are directly interested in study abroad or conservation expeditions with TIDE. For the first time in Belize, TIDE Tours hosted a Bird Language Training for park rangers and local tour guides which will be a new market it hopes to tap into, in the new year. In 2019, the business hopes to have all park accommodations operational and provide a more valuable experience to students and visitors. TIDE Tours also plans to develop a robust sustainable development plan within the parks that will be able to contribute more to TIDE's Financial Sustainability.

Below are some photos that highlights 2018 activities:



TIDE Tours hosted a familiarization tour in November 2018 to showcase Toledo's attractions and TIDE's Conservation Program. Travel agents came from the USA and Guatemala. The picture above features the travel agents participating in a reforestation project with the Xucaneb group in Columbia Village, Toledo.

**Intensive Bird Language & Wildlife Tracking Training**  
 April 9-14, 2018

*Training conducted by  
 Lee Burton  
 & Casey McFarland,  
 Naturalist Ventures, USA*

**OUR PRICE: BZ\$500**  
*Includes accommodation, meals, transfers. Valued  
 at over \$2000 so sign up early!*

**Deadline: March 20, 2018**

**Contact:**  
**info@tidetours.org**  
**722-2129/6150310**



Bird Language and Wildlife Tracking Training was conducted by consultants of Naturalist Adventures (USA based), who trained several guides and TIDE Rangers from Toledo.



Students from Drake University conducted a three-week Belize Immersion Package with TIDE Tours that incorporated social science surveys, conservation field experience and visiting popular tourism attractions in Belize.





TIDE Tours has formally submitted a license request to the Belize Tourism Board for approval to have its first park accommodation, licensed to receive visitors in 2019.



**Staff Spotlight:**  
**Delonie Forman**

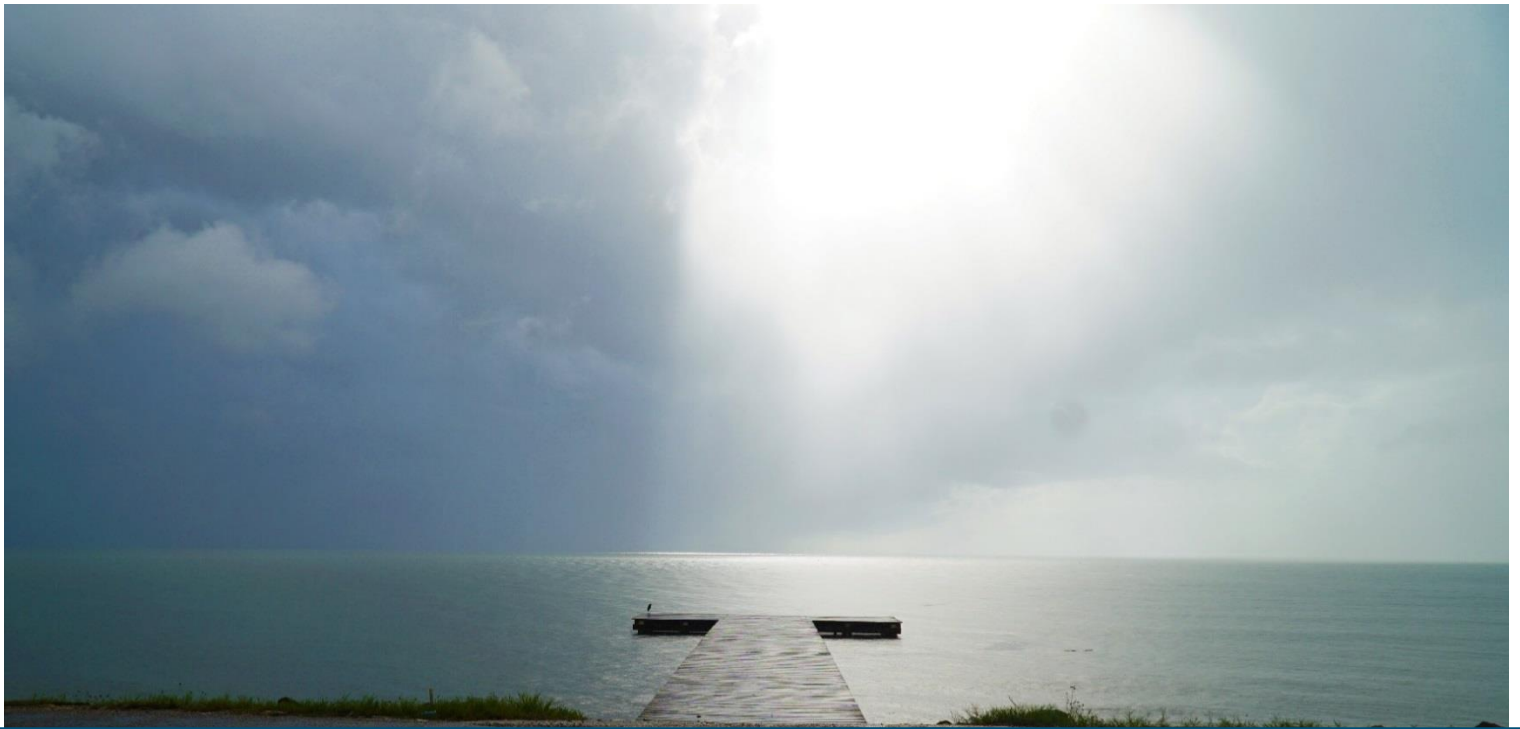
(TIDE's Financial Sustainability Manager)



out of her roles at TIDE.

Ms. Delonie Forman first joined the TIDE family as a volunteer in 2005, with a passion for eco-tourism and the environment. After becoming a permanent member of the team in various roles, she took a three-year break to pursue a Bachelor's degree in Tourism Management at the University of Belize. Upon her return in 2010, she was the natural choice to take on the role of TIDE Tours Manager, a position she retains today. She oversees the business initiatives undertaken by TIDE and ensures the efficient management of TIDE Tours, the tour operating company for TIDE. She works closely with all guests, ensuring their travel in Belize is smooth and comfortable, and goes the extra mile to ensure all customers have an unforgettable time in Belize.

Delonie is passionate about sharing the natural beauty of her native Belize and particularly so Toledo, with visitors from all over the world. She has added to the attractions of Toledo by providing a lovely dining and snacking experience at a central location in Punta Gorda town, by way of her very own small business. Through this establishment, Delonie has also actively engaged in the upliftment to her community by the employment opportunities she has extended and sustains. She has proven herself to be quite the team player both in and



## Finances

<b>TIDE's Expenses by Protected Areas</b>	USD	
1 TIDE Private Lands	\$51,203.50	5%
2 Payne's Creek National Park	\$136,765.00	14%
3 Port Honduras Marine Reserve	\$495,909.00	51%
4 General & Administrative	\$225,015.50	23%
5 TIDE Sustainability Initiative	\$72,083.50	7%
Total:	\$980,976.50	100%

<b>TIDE 2018 Income Breakdown</b>	USD	
Grants, Private	\$282,893.00	34%
Grants, Public	\$485,668.00	58%
Endowment Interest	\$21,709.50	3%
Other Income	\$46,661.00	6%
Total:	\$836,931.50	100%