

Project Update: January 2018

We participated in the “Animal’s Day Fair” in Puerto Morelos, Quintana Roo, Mexico invited by the NGO “ConMonoMaya A.C.” through its chair Luisa Rebecchini. In this event we presented a poster and explained to the people attending about the impacts of highways on wildlife and why wildlife underpasses are important features for mitigating those impacts and maintaining connectivity in the long term. We used a photo slideshow on the laptop showing photographs of mammals using the crossing structures along the Nuevo Xcan- Playa del Carmen highway. Most attendants show surprise when they learned those animals (jaguars, ocelots, etc.) were photographed using crossing structures existing in a nearby highway.

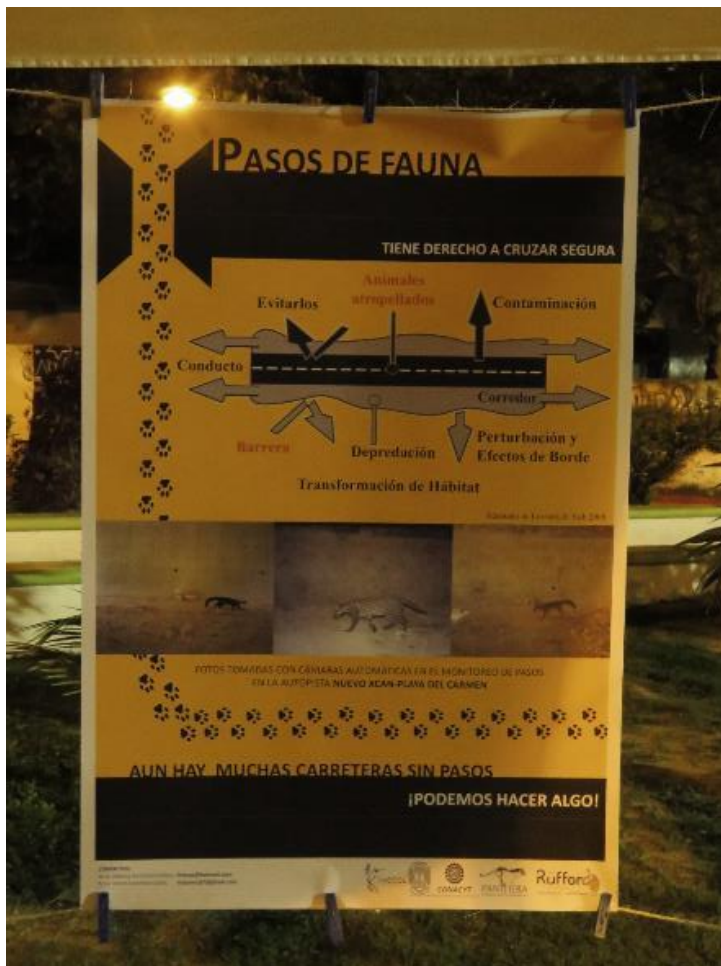
Also invited by them later on, V. Castelazo-Calva went with them to Leona Vicario, another city in the influence area of the Nuevo Xcan-Playa del Carmen project to give a talk to high school kids about mammals of the region in general terms and the importance of their conservation. MSc. V. Castelazo-Calva posing at the divulgation poster stand. The laptop was used as visual aid with a slide show of photographs of mammals registered using crossing structures at the Nuevo Xcan-Playa del Carmen highway.

“Animal Day’s Fair” organized by ConMonoMaya A.C. in Puerto Morelos (Quintana Roo, Mexico) main square. The event lasted from 4pm to 9pm on October 13th 2017.





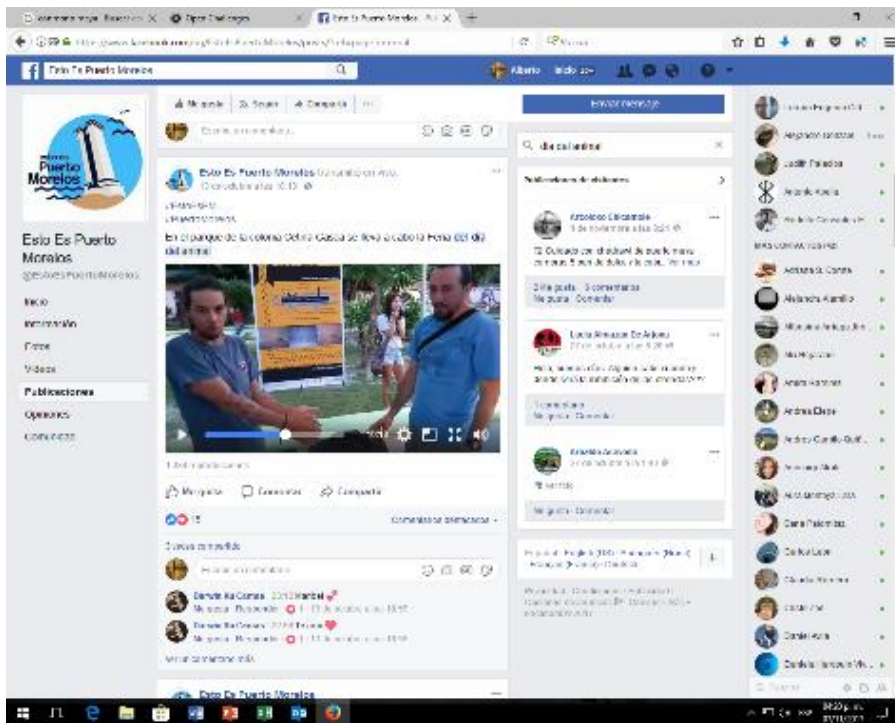
Close-up of the divulgation poster. Leading message being highway impacts on wildlife and how wildlife underpasses help mitigate those negative effects.



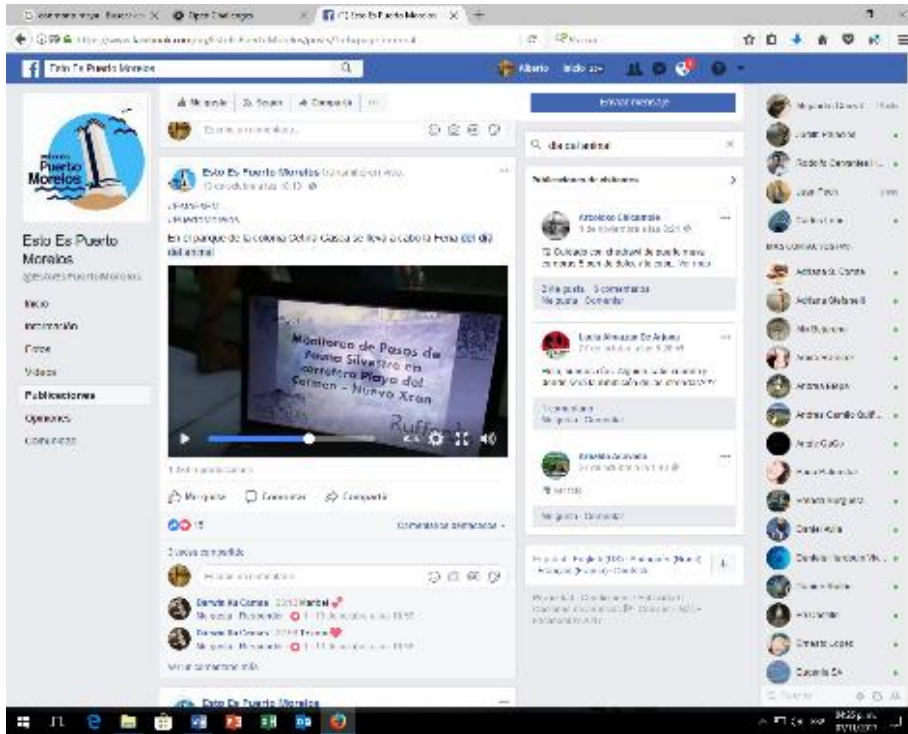
Awareness of the Nuevo Xcan-Playa del Carmen highway as a local good example of how underpasses work.



Certificates given to V. Castelazo-Calva and A. González-Gallina by ConMonoMaya A.C. (NGO) for participating in the fair for the "Animal day" in Puerto Morelos, Quintana Roo, México main square on October 13th 2017. Second certificate goes to V. Castelazo-Calva for a presentation in Leona Vicario



A recorded video interview was uploaded in the local news Facebook site "Esto es Puerto Morelos"



(https://www.facebook.com/pg/EstoEsPuertoMorelos/posts/?ref=page_internal). The team explained the importance of wildlife underpasses as highway mitigation efforts to maintain local wildlife connectivity in the long term.

**Autopista Nuevo Xcan – Playa del Carmen
Quintana Roo, México**

28 Cámaras trampa:
 * 10 Pasos de Fauna
 * 9 Alcantarillas de Losa
 * 9 Ductos de concreto

A2: 2 carriles con acotamientos, 12m corona, 60m derecho de vía. 54km longitud. Circulación 110km/h

Paso de Fauna
(3m ancho x 4.5m alto) con cercado de inducción Suelo natural.

Alcantarilla de Losa
(2m ancho x 1m alto)

Ductos de concreto
(1.5m diámetro)

Puntos Relevantes:

- * Los jaguares utilizan únicamente los pasos de fauna (6 individuos, machos y hembras, 24 registros)
- * Uso diferenciado por la comunidad de maníferos
- * No toda la comunidad de mamíferos está representada (aunque sí la mayoría)
- * Muy pocos tuagulaños, requieren probablemente mayor ancho en estructuras.
- * A pesar de estar en el área los pumas no parecen utilizar las estructuras.

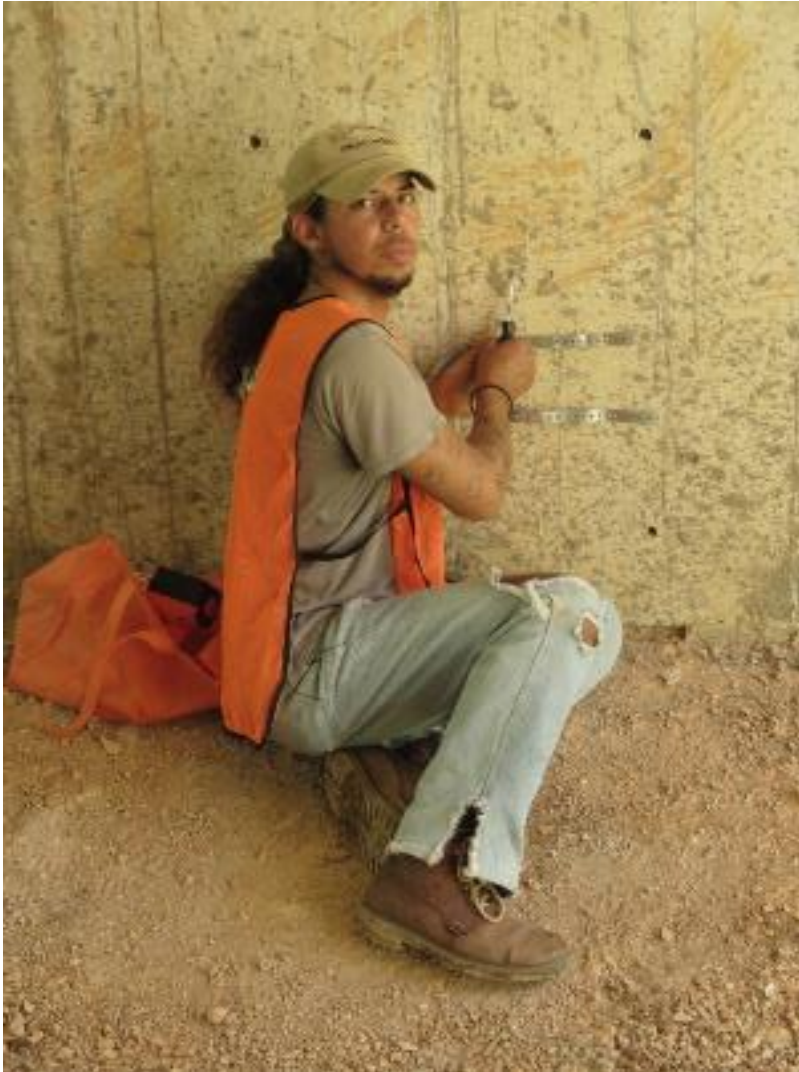
M.Sc. Alberto González Gallina
 M.Sc. Víctor Castelazo Calva
 Dr. Mircea G. Hidalgo Mhart

A slide was prepared with a summary of the project's outcomes for a Road-ecology workshop on the XXI SMBC congress in Costa Rica imparted by Dr. A. Clevenger on October 30th of 2017.

FIELDWORK

WILDLIFE UNDERPASS MONITORING:

After gathering the original cameras set during Panthera's sponsorship, we went out to the field once more to set 15 camera traps concentrating this time only on wildlife underpasses. We used all previous 10 stations plus another five. So far we've done two monthly camera checks (October-November and November-December). Amongst notable records we have tayras (*Eira Barbara*), white-tailed deer (*Odocoileus virginianus*), a puma (*Puma concolor*) and a jaguar (*Panthera onca*).



Here V. Castelazo-Calva preparing the base to set a camera trap inside one of the wildlife underpasses. Cameras were set in the middle of the pass facing towards the center.



Some examples of mammals using the wildlife underpasses along the Nuevo Xcan-Playa del Carmen Highway. A) Tayra (*Eira Barbara*), B) White-tailed deer (*Odocoileus virginianus*), C) Domestic dog (*Canis familiaris*), and D) Paca (*Cuniculus paca*).

ROAD-KILL SEARCH:

We initiated a monthly road-kill search looking for medium to big mammals, but also recording other notable organisms. Roadkill transect comprehends four segments: Puerto Morelos-Playa del Carmen, Playa del Carmen-Tintal (Nuevo Xcan – Playa del Carmen highway), Tintal-Leona Vicario and finally Leona Vicario-Puerto Morelos. Each segment presents its own particular characteristics in terms of length, road width and traffic flow. Idea is to obtain a daily estimation of roadkill's and compare roadkill/km index between highway segments.



V. Castelazo-Calva showing a fresh road-killed boa (*Boa constrictor*) found during the camera trap setting along the Nuevo Xcan-Playa del Carmen highway.



Coatis (*Nasua narica*), like the one showed in the photograph and grey foxes (*Urocyon cynereoargenteus*) are the most commonly found mammal roadkill's along the monitored segments.