"Socioeconomic aspects of turtle conservation in the Cayman Islands"

Aim of the project: The aim of the project "Socioeconomic aspects of turtle conservation in the Cayman Islands" is to provide data on the role of the Cayman Turtle Farm in wild turtle conservation by allowing determination of cultural importance, current prevalence and socioeconomics of turtle consumption in the Cayman Islands.

Project partners: The project was granted to the Cayman Islands Department of Environment and funded through the UK Government's Darwin Initiative. Surveys were carried out by researchers from the University of Exeter, UK, led by Dr. Ana Nuno.

Study rationale: Throughout the history of the Cayman Islands, turtles have played an important role in the economy and culture; the turtle is a national emblem, enshrined in the flag and currency, and turtle meat is considered by some to be the Cayman Islands' "national dish". In 1968 the Cayman Turtle Farm was established to provide turtle meat for consumption, reduce demand on wild stocks, and replenish the wild nesting population through the release of hatchling and yearling turtles. In 1978, legal protection for the remnant wild turtle nesting population, through prohibiting take of turtle eggs and nesting females, was instituted; further protections were added in 1985 and 2008.

However, illegal take of turtles from the wild is known to occur and production of turtle meat by CTF (as well as the importance and current prevalence of turtle consumption) is often hotly debated and controversial. CTF has also recently been subject to an international campaign to end turtle farming by the international NGO World Animal Protection (WAP; formerly known as WSPA – World Society for the Protection of Animals). This campaign has raised animal welfare issues and, from a species management and conservation perspective, arguments have been made that CTF is creating demand among international tourists, maintaining or stimulating demand among Caymanians, and potentially driving a black market for wild turtle products by creating market opportunities for turtle meat obtained through illegal take. Alternatively, CTF and the Cayman Islands Government have argued that CTF is both enhancing wild stocks through releases and reducing illegal take of wild turtles by providing a legal source of meat.

The aim of the ongoing "Socioeconomic aspects of turtle conservation in the Cayman Islands" project is thus to provide robust scientific data on the role of the Cayman Turtle Farm in wild turtle conservation.

Method and results: From September 2014 to June 2015, we conducted interviews with 597 households, 174 high school students, 204 international tourists, and 39 restaurants to investigate demand, cultural and age effects in the consumption of turtle meat and the potential influence of price and availability of farmed turtle meat in incentivising or reducing take of wild turtles.

According to our results, 30% of all residents and 62% of Caymanians by descent, i.e., having a Caymanian grandparent, consumed turtle meat at least once in the last year. Among Caymanians by descent, 7% ate turtle once during last year, 39% ate turtle meat a few times, 14% had turtle every month and 2% had turtle every week. Key reasons given for eating turtle include taste, tradition and culture, and celebrating special occasions.

After adjusting for price, demand for the traditional turtle stew has remained relatively constant since 1996. While socio-demographic changes may influence the prevalence of turtle meat consumption in the future, we found inconclusive evidence of age-related differences in turtle consumption among residents, suggesting that this behaviour is not expected to "die out" in the near future. However, possible generational effects among residents who are Caymanian by descent may be important in the longer term because young people (<35yrs) within this socio-demographic group were significantly less likely to have eaten turtle in the last year.

We identified 41 restaurants or informal food businesses serving turtle dishes in the Cayman Islands. Among residents, 79% did not have turtle meat in a restaurant last year, 2% had it once, 14% had it a few times per year, 3% had it every month and 1% had it every week. During our sampling period in November 2014, 2% of the stay-over tourists and 6% of the cruise ship tourists ate turtle during their visit to the Cayman Islands.

Our results show that resident turtle meat consumers are significantly influenced by the price of turtle meat, distance which must be travelled to obtain it, and the source of the meat, preferring lower prices, shorter distances, and farmed meat. Price was the key driver of consumer decisions, suggesting that the general consumer will choose the cheapest turtle meat, regardless of its source. While farmed meat is generally preferred by the overall consumer population, wild meat is selected if distances to obtain farmed meat are too great. Our study also shows that 16% of consumers prefer wild turtle. Taste was the main reason for consumers preferring wild turtle, while wild turtle being illegal and availability were the main reasons for consumers preferring farmed turtle.

Despite the presence of a legal source of turtle meat, illegal take is high relative to the size of the Cayman Islands wild turtle nesting population, with at least 195 households estimated to have bought illegal turtle meat during the last year.

Our study indicates that action must be taken to safeguard Cayman Islands wild turtle populations and continued monitoring of turtle meat sales and illegal take should be undertaken so that management interventions can be informed by robust scientific evidence on social, economic and biological aspects of turtle conservation.

Public presentation: Thursday 22 October 2015 at 6 pm in the George Town Hall.

Contact information: Dr. Ana Nuno - A.M.G.Nuno@exeter.ac.uk