Association Emys Conservation
A3 Résidence La Voie du Sud
91160 LONGJUMEAU – France
01 69 09 27 24 – 06 16 98 52 04
emyso@aol.com
http://emys.conservation.free.fr

Lettre n°32

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SOMMAIRE

JOYEUX NOËL À TOUS ET BONNE ANNÉE 2020
MERRY CHRISTMAS AND HAPPY NEW YEAR 2020

EDITORIAL : p2

Chers collègues et amis,

Les Journées Techniques Cistude se sont tenues les 19 et 20 septembre 2019, en Brenne, au Domaine de Bellebouche, centre qui offre la salle de conférence, héberge et nourrit les congressistes. C'est la 2ème fois que les JT se tiennent à Bellebouche, c'est très pratique, économique avec une position centrale en France. Frédéric Beau qui travaille à la Réserve de Chérine, était l'organisateur. Jacques Trotignon, directeur de cette Réserve Nationale, en fin de carrière a introduit ces JT, avec un peu d'amertume quant au bilan mitigé de la protection au Parc Naturel Régional de la Brenne.
Stéphanie Thienpont nous a parlé du prochain PNA (Plan Nat d'Action) N°2, 10ans, de 2020 à 2030, de sa rédaction, des nouveautés introduites. Julien Renet de l'état des connaissances de la compétition Cistudes-Trachemys en défaveur des premières, dû au vieillissement des populations, souligné aussi par Jean-Marc Thirion pour le marais de Brouage et aux difficultés des reproductions naturelles. Louisiane Burkart a évoqué l'impact des pesticides en Camargue, du mercure en Brenne. Sylvain Ursenbacher a étudié la génétique appliquée aux populations suisses, Frédéric Beau, à partir de micros émetteurs fabriqués en Belgique, a pu faire un passionnant suivi des émergents… Timothe Beshers a évoqué un exceptionnel bassin de lagunage en bordure d'autoroute, rempli de tortues d'eau douce introduites. Vendredi 20, Laurent Barthes propose une base de données nationale de répartition de la Cistude. André Miquet nous a parlé du suivi des réintroductions, Marc Cheylan de la pertinence relative des études démographiques ainsi que Raphaël Quesada, celle des CMR.
Le congrès national de la SHF s'est tenu, lui, à St Girons en Ariège, du 10 au 12 octobre 2019. C'est une ville que je connais très bien et que j'aime beaucoup, j'ai eu beaucoup de plaisir à m'y retrouver ces trois jours. J'ai donc rajouté, comme pour la rencontre Emys, quelques photos sélectionnées de cet évènement. Toutefois, une communication « Cistude » m'a interpellé, celle sur le métabarcodage, (code génétique) de ses aliments en étudiant les fèces par, C. Duciotterd (*et al.*). Où nous découvrons que son alimentation est beaucoup plus diversifiée que nous l'imaginions et variant avec les saisons…
Enfin un article de la presse locale de Minorque sur mon **relâcher 2019 de cistudes dans l'île**. Et d'autres informations internationales, bonne lecture…

Alain Veysset, rédacteur


Belles journées ensoleillées dans le Domaine, et retrouvailles entre amis et spécialistes

Dear Colleagues and Friends,

The Emys Technical Days were hold on the 19th and 20th of September 2019 in Brenne at the Bellebouche Domain, and the delegates are been taken care off (lodging and food). It's the second time for the TD's at Bellebouche for its very convenient economically with a central position in France. Frederic Beau who works at the Chérine Reserve was the organizer. Jacques Trotignon at the end of his career the director of this National Reserve introduces the TD's with some bitterness because of the ambivalent assessment of the protection of the Natural Regional Park of Brenne.
Stéphanie Thienpont spoke about the next PNA(National Action Plan) N°2 for 10 years from 2020 to 2030, his writing and the new parts introduced. Julien Renet the state of knowledge about competition between Emys and Trachemys in favor of the last one because of the ageing of the Emys populations, emphasized also by Jean-Marc Thirion in the marshland of Brouage and the difficulties of natural reproductions. Louisiane Burkart brought up the impact of the pesticides in Camargue and mercury in Brenne. Sylvain Ursenbacher studied genetics in accordance to the populations of Switzerland, Frédéric Beau, using micro transmitters made in Belgium carried out a successful and exciting survey of emergents… Timothe Beshers evoked an exceptionnal lagoon basin near a motorway full of introduced water turtles. On Friday 20th, Laurent Barthes proposed a national data base on the distribution of *Emys orbicularis*. André Miquet spoke about the monitoring of the reintoductions, Marc Cheylan about the relative pertinence of the demographic studies and also Raphaël Quesada, but about the CMR (capture, branding and capture again).
The National Congress of the SHF was held at St Girons in Ariège, from the 10th to the 12th of October 2019. I knew very well this town and I love it I had a lot of pleasure to return again in three days. I have added as for the Emys meeting some selected photos of this event. A lot of very good communications, but one on Emys questions me, those on the metabarcodage (genetical code) of the food when studiing the excrements by C. Duciotterd (*et al.*). When we discover that its feeding is more varied than we imagine and changing with the seasons…
At the end a local press article of Menorca on my release 2019 of Emys in the island and other international news, enjoy reading !

Alain Veysset, redactor


Sylvain et Raphaël, Louisiane, Frédéric et François du CNRS de Chizé.



Que deviennent les jeunes cistudes après leur sortie du nid ? Jacques Trotignon.
Suivi des sites de ponte dans le marais de Brouage.


Accueil et posters à la mairie de St Girons, tout au fond, sur la droite, arrivée à la salle de cinéma : où se tiennent les communications et le congrès.


Le Salat qui se jette dans la Garonne,
sur ses berges en pleine ville, la couleuvre d'eau chasse le lézard


Accueil du maire de St Girons et Laurent Barthes notre président.
Retrouvailles d'herpétologues, jeunes et à peine moins.


St Girons la nuit, place du magnifique marché du samedi-matin et repas festif dans un restaurant, juste en face de la mairie


Service selfies avec Françoise et Jérôme,
Et ça se voit que dormir dans la voiture rend moins photogénique

Mira Menorca

Alain Veysset devuelve a los reptiles a la charca de Ets Alocs, a la que vuelven despúes de siete años. GEMMA ANDREU

El incendio de Ets Alocs, en 2006, una catástrofe para los reptiles

▶ Veysset explica que la máxima población se dio en 2006, cuando llegaron a haber 27, pero ese mismo año hubo un incendio en Ets Alocs, que llenó la tierra de al rededor de la charca de tierra y ceniza, lo cual provocó la muerte de muchas de ellas, y solo quedaron tres tortugas hembras, lo cual no era suficiente para la preservación del grupo, asegura.

Otro factor importante de la despoblación, relata, fue que con el incendio llegaron las ratas, las cuales habían perdido su principal fuente de alimento al demolerse las casas que había en la zona, «yo traté de cazarlas con una trampa, pero sin duda la mayor ayuda fue una serpiente que apareció de repente y se comió todas las ratas», recuerda.

Ets Alocs recibe sus tortugas

▶ Alain Veysset lleva los últimos veinte veranos estudiando esta población de **tortugas autóctonas** de la Isla

Andrés Goenaga

El biólogo francés Alain Veysset, devolvió ayer una tortugas, de la especie *Emys orbicularis*, a la charca de Ets Alocs a la que pertenecían, después de pasar siete años en el centro de reproducción de tortugas de S'Alvera, en Girona, donde estaban apareándose y han tenido muchas crias.

Las tortugas, ansiosas por volver a su casa. G.A.

Veysset llegó en barco a la Isla el domingo, después de salir Girona el viernes y hacer escala en Barcelona.

En Ets Alocs, las tortugas se alimentan de insectos, y las más pequeñas comen muchos mosquitos y larvas, pero la comida no es abundante, por lo que Veysset ha decidido llevar a cinco de ellas, entre las cuales hay una hembra adulta, al Barranc d'Algendar, donde las soltará hoy. «Las que se van son más grandes y pueden comerse los cangrejos que hay allí, en cambio si fuesen las pequeñas, los cangrejos se las comerían a ellas», explica.

Dedicación total

Cuenta que lleva 20 años viniendo a Menorca en verano para estudiar y seguir la población de las tortugas de Ets Alocs, y sus dificultades, con la autorización de los gobiernos insular y balear, y dice que lo hace voluntariamente y sin cobrar, por el placer de ayudar a la biodiversidad de la Isla y su conservación. Él estudia las tortugas y ve su evolución, y cómo van reproduciéndose.

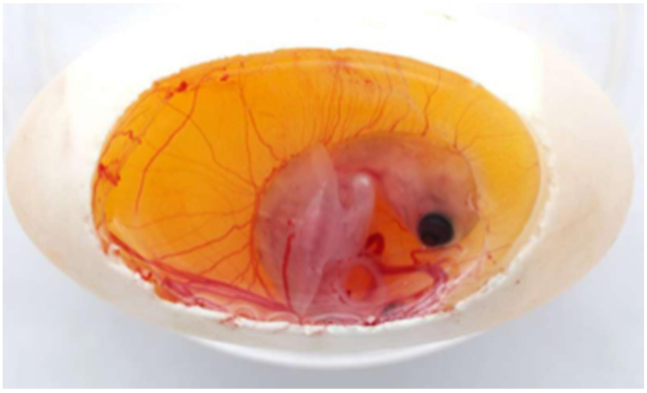
Una cría, de entre 1 y 3 años, antes de ser liberada. G.A.

Ahora, tiene 70 años y está retirado, pero antes era el responsable en Francia de la Asociación científica del país para todo lo que se hacía con las *Emys orbicularis*, y ayudó a prohibir la importación de tortugas americanas a la UE, por sus enfermedades. Ahora se dedica a la conservación de esta especie en los parques naturales de Francia, para los que hay un plan nacional.

Veysset espera que algún dia el Consell invierta en excavar la charca de Ets Alocs, «para que así haya más agua, ya que las tortugas podrían así vivir en un entorno mejor, pero siempre me dicen que no hay dinero», afirma con esperanza.

TURTLE EMBRYOS PLAY A ROLE IN DETERMINING THEIR OWN SEX p7

phys.org 8/1/19



A turtle embryo. Credit: Ye et. al / Current Biology

In certain turtle species, the temperature of the egg determines whether the offspring is female or male. But now, new research shows that the embryos have some say in their own sexual destiny: they can move around inside the egg to find different temperatures. The study, publishing August 1 in the journal Current Biology, examines how this behavior may help turtles offset the effects of climate change.

"We previously demonstrated that reptile embryos could move around within their egg for thermoregulation, so we were curious about whether this could affect their sex determination," says corresponding author Wei-Guo Du, professor at the Chinese Academy of Sciences. "We wanted to know if and how this behavior could help buffer the impact of global warming on offspring sex ratios in these species."

Du and his colleagues incubated turtle eggs under a range of temperatures both in the laboratory and in outdoor ponds. They found that a single embryo could experience a temperature gradient of up of 4.7°C within its egg. This is significant because any shift larger than 2°C can massively change the offspring sex ratio of many turtle species, Du said.

In half of the eggs, they applied capsazepine, a chemical that blocked temperature sensors, to prevent behavioral thermoregulation. After the eggs hatched, the researchers found that the embryos without behavioral thermoregulation had developed as either almost all males or almost all females, depending on the incubation temperatures. In contrast, embryos that were able to react to nest temperatures moved around inside their eggs; about half of them developed as males and the other half as females.
"The most exciting thing is that a tiny embryo can influence its own sex by moving within the egg," Du says.

By moving around the egg to find what Richard Shine, a professor at Macquarie University of Australia and one of the co-authors, calls the "Goldilocks Zone"—where the temperature is not too hot and not too cold—the turtles can shield against extreme thermal conditions imposed by changing temperatures and produce a relatively balanced sex ratio.
"This could explain how reptile species with temperature-dependent sex determination have managed to survive previous periods in Earth history when temperatures were far hotter than at present," he says.

But this behavior has limitations, Du says, depending on the conditions of the egg and the embryo itself. "Embryonic thermoregulation can be limited if the thermal gradient within an egg is too small, or if the embryo is too large to move around or too young to have developed these abilities yet," he says.
Additionally, the behavior cannot buffer the impact of episodes of extremely high temperatures, which are predicted to increase with climate change, Du says.

"The embryo's control over its own sex may not be enough to protect it from the much more rapid climate change currently being caused by human activities, which is predicted to cause severe female-biased populations," he says. "However, the discovery of this surprising level of control in such a tiny organism suggests that in at least some cases, evolution has conferred an ability to deal with such challenges."
Du says that this study indicates that these species may have some ways not yet discovered to buffer this risk. "Our future studies will explore the adaptive significance of embryonic thermoregulation as well as the other behavioral and physiological strategies adopted by embryos and mothers to buffer the impact of climate warming on turtles."

More information: Current Biology, Ye et al.: "The Embryos of Turtles Can Influence Their Own Sexual Destinies" http://www.cell.com/current-biology/fulltext/S0960-9822(19)30765-1 , DOI: 10.1016/j.cub.2019.06.038

HOW RED-EARED INVADERS ARE HURTING CALIFORNIA'S NATIVE TURTLES (1) p8

Turtles bask in the sun at Jewel Lake in Tilden Regional Park. In the middle, a western pond turtle, one of California's few native turtles, holds up it's head, and on the far right sits an invasive red-eared slider turtle, which can be identified by the characteristic red stripe on the side of its head. (Photo by Robin Lopez)

By Kara Manke, 8/22/19 from UC, Davis.

In the summer of 2011, visitors to the University of California, Davis, Arboretum may have witnessed an unusual site: small teams of students wielding large nets, leaping into the arboretum's waterway to snag basking turtles.

The students weren't in search of new pets — quite the opposite, in fact. The teams were part of a massive project to remove hundreds of invasive red-eared slider turtles from the arboretum in an effort to observe how California's native western pond turtles fair in the absence of competitors.

Red-eared sliders are the most commonly traded pet turtles in the world, but are often released into the wild by disgruntled owners when they get too big to handle. Thanks to illegal dumping, the sliders, which are native to the Central United States and Northeastern Mexico, can now be found all over the world. Their new stomping grounds include California, where they vie for food and sunny basking sites with western pond turtles, whose populations are in rapid decline due to agriculture and urbanization.

The results of the removal study, published recently in the journal PeerJ, showed that western pond turtles get a lot fatter and healthier without competition from their invasive brethren — and the remaining sliders likely fair better, too. The study is the first to quantify competition between these two species in the wild.

"I think, finally, we have some good evidence in the United States that it's time to critically think about not having pet slider turtles, and likely other aquatic turtles, and mitigating this pet trade because it's not great for the pets, and it's not great for these wild species either," said Max Lambert, a postdoctoral researcher at the University of California, Berkeley, and lead author of the study.

A western pond turtle (left) and a red-eared slider (right) sit side by side in the UC Davis Arboretum. (Photo by Max Lambert)

It's not hard to see why red-eared sliders are the most popular pet turtle in the United States: As hatchlings, sliders are small, friendly and sport striking red stripes on either side of their heads.

But give it a few years, and the once-cute reptiles grow snappy, smelly and can expand to the size of a dinner plate.

"They are so cheap, they are in every single pet store, and they seem like a great pet until they get to be a few years old, and then they get big, mean, smelly and are a pain to take care of," Lambert said. "So, people just take them to a nearby pond and let them go."

As an undergraduate studying ecology and conservation at UC Davis, Lambert was curious to know what effect these invasive turtles might be having on western pond turtles, which are currently listed as vulnerable on IUCN's Red List of Threatened Species. While experiments in laboratory settings have hinted that sliders will compete for food with pond turtles, he couldn't find any data looking at how the two species interact in the wild.

Lambert and five other UC Davis undergraduates teamed up with their faculty adviser, H. Bradley Shaffer, who is a professor of ecology and evolutionary biology at UCLA, and Gregory Pauly, curator of herpetology at the Natural History Museum of Los Angeles County and senior author of the study, to design the removal experiment.

With the help of volunteers and other UC Davis undergraduates, including Jennifer McKenzie and Robyn Screen, who are co-first authors of the recent publication, the team used turtle traps, nets and, when necessary, their own hands, to remove and euthanize 177 red-eared sliders living in the UC Davis Arboretum waterway during the summer of 2011. Lambert estimates they caught about 90 percent of the total red-eared slider population in the arboretum.

They also tracked the weight of the western pond turtles and observed the turtles' basking habits. Time spent basking in the sun is critical for cold-blooded turtles; they need the heat to power digestion and their immune systems, Lambert said.

The researchers found that, in the year after the slider removal, the pond turtles gained an average of about 40 grams, representing about 5 to 10% of their body weight — quite a lot for a turtle. This weight gain is especially important for female turtles, whose egg clutch size is related to their overall size, Pauly said.

"If these females are much healthier and much more likely to have larger clutch sizes, that increases the likelihood that we are then going to get more juvenile turtles cruising around these urban waterways," said Pauly, who was a postdoctoral researcher studying reptile and amphibian conservation at UC Davis at the start of the experiment.
While the slider removal didn't have much of an impact on the western pond turtles' basking behavior, the researchers did find that the remaining sliders spread out to a few select basking sites, indicating that they were actually crowding each other out before the removal.

"The reality is, in many of these urban ponds, there are so many red-eared sliders that there are high levels of competition amongst those sliders for basking sites and also probably for food," Pauly said. "It's not just that red-eared sliders are having negative impacts on the western pond turtles, but the red-eared sliders are themselves facing this huge series of challenges."

As a postdoctoral researcher at UC Berkeley, Lambert says he has plans to study western pond turtles and red-eared sliders in the Bay Area. He is initiating partnerships with the East Bay Regional Park District to first observe western pond turtles in ponds and lakes in the system, and then conduct another intensive removal of red-eared sliders in and around places like Jewel Lake.

"What we found with our slider removal at Davis was that it was just so human-intensive and would cost any agency a ton of money to do what we did at that scale," Lambert said. "And so, while it seems that slider removal has an effect, the question is, 'How much of an effect is it having, relative to western pond turtles living in an urban place, where they get run over by cars, eaten by raccoons and coyotes and dogs and sometimes taken home as pets by people not realizing the negative impacts they are having?' We're hoping to parse out a bit better the degree to which sliders are having an impact relative to every other challenge we throw at these turtles."

Co-authors of the paper include Jennifer M. McKenzie of the University of Kentucky, Robyn M. Screen of the University of Hawaii at Manoa, Adam G. Clause of the Natural History Museum of Los Angeles County, Benjamin B. Johnson of Cornell University and Genevieve G. Mount of Louisiana State University.

This work was supported by National Science Foundation DEB grants (1257648 & 1457832), the Natural History Museum of Los Angeles County and the Northern California Herpetological Society.

SOME CALENDARS ARE ALWAYS AVAILABLE p10

2020 Calendars now available
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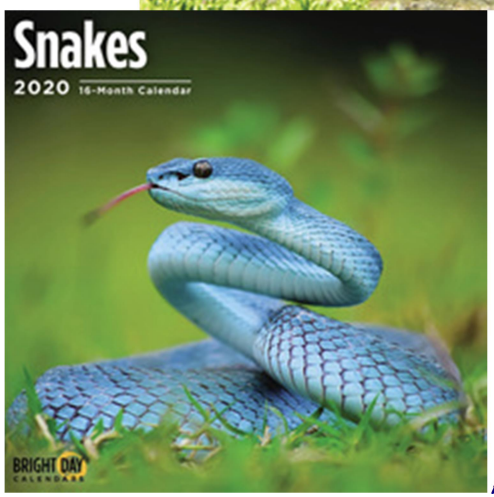

All we have left are turtle and alligator calendars.
If interest in either and want it by the holidays order now.

Thanks for your support

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Member of IUCN Tortoise and Freshwater Turtle IUCN Species Survival Group

HOW A TUNNEL IS SAVING TURTLES LIVES IN WISCONSIN (1) p11

by Mary Jo Dilonardo, September 10, 2019, Mother Earth Network

A snapping turtle emerges from the north tunnel entrance. (Photo: Pete Zani/University of Wisconsin-Stevens Point)

There's a stretch of Wisconsin State Highway 66 right around where it crosses the Plover River that has a reputation as a danger zone for wildlife. When animals try to cross the road, many of them don't make it. In 2015 alone, 66 turtles were killed trying to cross the busy highway.

So when the highway had to be resurfaced a few years back, the Wisconsin transportation and natural resources departments teamed up with the University of Wisconsin-Stevens Point to come up with a solution. They decided to install low fencing along the roadside and build an underpass beneath it, giving wildlife — particularly turtles — safe passage.

"Turtles took a bit to figure out what to do, but even from the outset, some turtles went right through the tunnel while others struggled to figure it out," Pete Zani, herpetologist and associate professor of biology at the University of Wisconsin-Stevens Point, tells MNN.

Maybe because it was dark, some turtles weren't sure what to make of the underpass, so Zani came up with a few improvements to make it more appealing.

"Post-installation improvements include a light-colored backdrop of sheet metal placed to reflect light into the tunnel as well as create a light-colored backdrop from the turtle-eye viewpoint," he says.

Flashing at the tunnel entrance helps turtles see that this isn't simply a dark hole to nowhere. (Photo: Pete Zani/University of Wisconsin-Stevens Point)

The shiny flashing at the ends of the tunnel reflect light and show the sky, so the turtles know they have a path to cross the highway. Zani and his team literally created light at the end of the tunnel.

They also placed some grates over the tunnel to lighten the passageway, and they created one-way slippery slides, called excluders, from the roadway down to safety for small animals like toads that sometimes get trapped along the fencing and don't know how to get free.

"These were inspired by their use in other locations, like along I-70 in western Colorado where they allow deer and antelope to escape the interstate corridor," Zani says.

A reflector creates light while a slide (hidden in this photo) helps animals slip down from the path to safety. The pole marks the opening of the tunnel. (Photo: Pete Zani/University of Wisconsin-Stevens Point)

The changes seemed to have helped.

"The light backdrop appears to have enticed turtles to take the plunge into the tunnel," Zani says. "The passage rate is still not perfect, but better. The excluders seem to allow wildlife to escape from the roadway so fewer animals are trapped in unsuitable locations."
Since the tunnel was built in 2016, only about 40 turtles have been killed on that once-precarious stretch of road. That's a significant drop from that high of 66 in just one year.
Zani had a few other ideas that might have lowered those numbers even further for traveling turtles, but they just weren't feasible.

"We considered enlarging the tunnel or installing lights, both of which would help," he says. "but both ideas were rejected due to site logistics as well as potential expense related to upkeep."

THE RISE OF THE TORTOISE MAFIA (MADAGASCAR) p13

by AARON GEKOSKI
National Geographic Traveler

'Tortoises make people smile,' Dr Christina Castellano explains. Christina, a member of US conservation group The Orianne Society, is a self-confessed tortoise nut who has been studying them for the last 15 years. She's hit the nail on the head: tortoises take us to a happy place. Perhaps it's their unhurried and simple way of life – they graze, they sleep, they fornicate. Very. Slowly. And if this all becomes a bit too much for them, they retreat into their shells and hide. I'd like to come back as a tortoise. If only their future didn't look so grim.

I was in Madagascar, Africa's tortoise hot spot, to investigate the crises facing these unique reptiles. Scientists believe Madagascar's tortoises are experiencing unparalleled declines; of the country's five endemic species, all are critically endangered. Populations of radiated tortoises have, for example, decreased by around 50% in the past 10 years alone.

Several complex factors are contributing to this demise. Years of extreme drought have sucked the moisture from these once lush plains. Madagascar's remaining forests are being systematically cleared for the charcoal and rice industries, and for cattle pasturage. It is estimated that less than 10% of its original forest, the tortoise's natural habitat, remains. And although protected under Malagasy law, tortoise meat is increasingly offered as 'the special' in restaurants throughout the country.

But perhaps the greatest threat facing the species is an all too familiar one: poaching. Madagascar's tortoises are being shipped by their shell-loads to Asia, the hub of the exotic pet trade. Here, they are then re-exported to collectors around the world. Less fortunate tortoises are sold on markets, their body parts used to create aphrodisiacs. Tortoise smuggling is huge business in Madagascar; it is whispered that government officials are involved in the trade. The industry is controlled by a 'Mr Big', an Asian businessman based in Antananarivo, Madagascar's capital city. His name is not widely circulated as he has a reputation for brutality. 'The tortoise-smuggling industry is getting out of hand. It's a hugely worrying situation,' Herilala Randriamahazo of the Turtle Survival Alliance (TSA) in Madagascar told me. Herilala proceeded to explain how armed poachers are invading villages and wiping out tortoises. One recent battle left a poacher, and the village king's son, dead.

Given that most Malagasy live on less than R16 a day, the monies involved are astronomical. A large ploughshare tortoise can fetch up to R300 000 on the black market. This demand has reduced their numbers to less than 600, rendering them the world's rarest tortoise.

Madagascar is made up of 18 tribes – some eat tortoises, some don't. To the latter, consuming tortoises is a fady (taboo) that has protected tortoises for centuries. Recent years, however, have seen an increase of tortoise eaters. 'These people poach tortoises, eat them, and send their dried meat to other villages without anyone standing in their way, and often even with a little bit of help,' says Christina. In the village of Tsiombe, a hot spot for tortoise consumption, the head of the local police force claims to be fighting a losing battle and tortoise shells litter a dump just metres from his office. Enforcing the law remains a major challenge here: what he requires is funding for a vehicle to pursue the poachers.

Incentivising locals to save tortoises is another solution the TSA is exploring. In recognition of one village's efforts to protect radiated tortoises, the TSA is funding the construction of a school. It's hoped that news will spread of the project, prompting other communities to work together against the poachers. Unless people change their behaviour soon, these animals will go the way of Madagascar's giant lemur and elephant bird.

It may not be too late for Madagascar's tortoises. A desire exists to turn the situation around and populations of certain species of tortoise are still healthy enough for us save them. Just. Let's hope that the efforts of locals, the police and conservationists are successful. There aren't many animals that make us smile like tortoises do.

EXCELLENT PERFORMANCES OF DOGS TO DETECT CRYPTIC TORTOISES IN MEDITERRANEAN SCRUBLANDS p14

Biodiversity and Conservation
December 2019, Volume 28, Issue 14, pp 4027–4045

Go to https://bit.ly/2XgCcek
for authors and contact information

Abstract

Mediterranean ecosystems are severely impacted by urbanization, habitat clearing, fires and landscape fragmentation; conservation actions are urgently needed. The protection status of a given area depends notably on the presence and detection rate of protected species. Further, habitat restoration, conservation translocations, or population reinforcement require precise information on the distribution of individuals. Thus, the success of important conservation measures relies on the capacity to locate individuals. Thanks to their sense of smell combined with high learning abilities, dogs have been used to track a wide range of biological targets. They generally surpass humans to detect cryptic species. In this study, we aimed at testing their detection performances with Hermann's tortoises. This secretive reptile provides a typical case of threatened Mediterranean species where protection actions are hampered by low detection rates; especially because low population densities increase the risk of false negative results during surveys. The ability to detect and save individuals, for example before destructive land-work, might be crucial. We evaluated the detection ability of dogs to find tortoises with two experiments. First, field trials showed that relative detection rate was three times higher in dogs compared to well-trained humans. Then, and more importantly, the absolute detection rate of dogs to find radio tracked tortoises was excellent: after two trials, dogs rapidly located all the experimental tortoises dissimulated along different field transects. Overall, dogs were very efficient in finding tortoises, especially well-hidden individuals. More generally, the immense potential of trained dogs should be extended to improve the techniques to detect and protect Mediterranean reptiles.

An Albino Rhinoclemmys pulcherrima, also known as the painted wood turtle.

Painted Red-eared Sliders

From Turtle Rescue of Long Island,

On 11/14/19 I picked up some hatchling slider turtles from US F&W that were being smuggled out of our country. Sadly several died before we got them and these five are not in very good shape. But I have never in all my years seen what was done to these poor little hatchlings. It was thought that they were stickers but it appears that they may have been painted. It's really sad to see that someone would do this to any turtle, but especially a hatchling that is so delicate. I only hope I can get them stabilized, their eyes all open, and eating so then I can figure out how to get this stuff off their shells. The case is under investigation so they can't be adopted out, but if they do survive and the case is closed, they will be put up for adoption. Some people are just despicable!

N°6, Germaine, la plus ancienne, en-dessous des autres me regarde fixement, elle a compris que je la ramène à la maison ! A droite, une « sargantana » à Minorque, un gecko, ailleurs.

Emys Conservation Editorial Policy :
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L'équipe de rédaction :
Editeur : Alain Veysset
Corrections : Thierry Frétey, Kay Taquet

Les membres du bureau :
Alain Veysset : Président
Jean Servan : Vice-Président
Maryse Servan : Trésorière

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