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Lettre n°18

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EDITORIAL

Chers collègues et amis,

Journées Techniques Cistude se sont tenues les 7 et 8 février 2013, à Aix les Bains au bord du lac du Bourget, temps printanier, succès chaque fois reconduit. Une cinquantaine de participants, gestionnaires bien souvent des Parcs naturels régionaux, se sont retrouvés avec beaucoup de plaisir pour échanger leurs expériences et découvrir les travaux des chercheurs. Je rappelle dans cette lettre, le programme des communications, qui a été suivi sans fausse note. Il y avait juste trois à quatre posters de plus (pour les intitulés, contacter Frédéric f.biamino@patrimoine-naturel-savoie.org). Une organisation économique et efficace avec visite guidée, le dernier jour, de la plage des Motets, dans le sud du Lac, ancien marécage réaménagé où ont été réintroduites les cistudes.

Dans le domaine de la conservation, un constat inquiétant : la difficulté de retirer du milieu la tortue américaine. Un arrêté préfectoral doit définir les conditions d'élimination, la solution la plus efficace étant le tir sélectif. Les gestionnaires de la zone de réintroduction du Lac sont confrontés aux abandons sauvages de la *Tse* sur un site immense. La communication dans les médias sur le projet (nécessité de le financer), la qualité de sa réalisation, a donné idée à des particuliers peu scrupuleux d'offrir à leur tortue familière exogène un espace naturel exceptionnel...

La discussion sur les différentes communications a été très riche. Sur le poster présenté par Emys Conservation "Situation alarmante pour les populations de cistudes de Minorque (Baléares)", il est bon de rappeler que les problèmes de conservation ne se révèlent pas au printemps, quand tout va bien, que la nature se réveille, mais en été, quand elle est confrontée à la pression humaine ou en hiver celle des éléments déchaînés... Une discussion s'est également menée sur un futur symposium européen. Nous avons estimé que l'organisation de ces JT devait servir de modèle : le plus économique possible par ces temps de "serrage de ceinture", le financement ne pouvant servir qu'à aider les participants des pays les plus pauvres et les plus éloignés à s'y rendre.

Aujourd'hui 23 mai c'est la Journée Internationale de la Tortue! Jour choisi par le plus grand des hasards, pour rédiger cet éditorial... "La tortue est une femme sage; elle entend beaucoup de choses, mais ne dit rien." (Cérémonie du Bison).

Dans cette 18^{ème} lettre, les informations d'Alain Dupré et d'Allan Salzberg, et quelques photos choisies des JT, bonne lecture, cordialement.

*Bonne lecture !
Alain Veyssset, rédacteur*

EDITOR'S CORNER

Dear colleagues and friends

Success was renewed as every year during The Emys Technical Days, the 7th and 8th of February 2013, with the spring weather in Aix-les-Bains by the Bourget Lake. Around fifty participants, often administrative employees of Regional Natural Parks, met again with a lot of pleasure to exchange their experiences and discover the works of the researchers. I remind in this letter the programme of the communications which was followed with no jarring note. We had just three or four posters more (For more information about the posters contact Frederic f.biamino@patrimoine-naturel-savoie.org). An economical and efficient guided tour was organized the last day at the Motet beach in the South of the Lake, a former wetland converted where Emys have been reintroduced.

In the Conservation field, we have a worrying report: the difficulty to pull out the American turtles. A bylaw issued by the local prefecture has to define the conditions of their elimination. The most efficient solution seems to be selective shooting. The administrative of the reintroduced area are confronted to illegal abandonment of the *Tse* (*Trachemys scripta elegans*) on a very wide site. The communication in media on this project (a necessity to raise money), the quality of the realisation, has incited unscrupulous individuals to offer their familiar exogenous turtle to an exceptional natural area.

The discussions on the different communications, as usual, were very rich. On the poster introduced by Emys Conservation: "Alarming situation for Emys populations of Minorca (Balearic Islands, Spain)", it is sometimes good to remind that problems of conservation don't emerge in spring when all is nice, when nature awakes, but in summer when it is confronted with human pressure or in winter confronted to furious elements... A discussion also happens on the future European Symposium. We had considered that the model was the organisation of these JT's: the most economical as possible during this period of austerity, financing will serve only to help participants of poor and most distant countries.

Today, the 23th of May is the International Turtle Day. It is also the day I wrote accidentally this Editor's Corner... "The turtle is a wise woman, she ears a lot of things but says nothing..." (Buffalo's ceremony)"

In this 18th Letter, information by Alain Dupré, HerpDigest and some selected photos of the JT's.
Enjoy reading, sincerely.

*Enjoy reading!
Alain Veyssset, editor*

JOURNEES TECHNIQUES CISTUDE, JEUDI 7 ET VENDREDI 8 FEVRIER 2013

Centre des congrès d'Aix-les-bains
www.patrimoine-naturel-savoie.org

Jeudi 7 février

09h30 - 10h00 : accueil des participants

10h00 - 12h00 : la réintroduction

- **Point sur la réintroduction sur le Rhône-Lac du Bourget**, André MIQUET et Michaël AURIAS, Conservatoire du patrimoine naturel de la Savoie. André JANIN, Olivier PUTOT / DDT Savoie.

- **Bilan de la nouvelle réintroduction de 2012 de jeunes cistudes sur les deux réserves naturelles de l'Hérault**. Anthony LABOUILLE & Denis REUDET / RNN de l'Estagnol.

- **«Le point sur le premier projet officiel de réintroduction de la Cistude (*Emys orbicularis*) dans le canton de Genève (2 ans après les premiers lâchers)»**. Céline ROCHET / BUBO BÜRO.

- **Réintroduction de la Cistude d'Europe à l'Alfacada (Delta de l'Ebre) dans le cadre du Life Delta Lagoon** - Albert BERTOLERO.

12h30 - 14h00 : pause repas (possibilité de se restaurer tous ensemble dans un restaurant à proximité si inscription)

14h00 - 18h00 : le suivi

- **Caractérisation d'une population de cistudes d'Europe dans le marais de Brouage - Evaluation de l'impact des techniques de curage en marais doux**. Olivier ROQUES / Nature-Environnement 17.

- **Estimations des taux de survie en fonction de l'âge chez la cistude d'Europe**

Sylvain DRILHOLLE, Anthony OLIVIER, Sébastien FICHEUX, Arnaud BECHET & Aurélien BESNARD.

- **Impact sur la génétique d'une population d'un barrage un siècle après sa construction**.

Sébastien FICHEUX / Station biologique de la Tour du Valat, Université de Bourgogne.

- **Détection automatique des événements de basking chez la cistude d'Europe *Emys orbicularis***. Florian BRESSON, Fabrice

LEVRESSE, Akiko KATO-ROPERT, Odeline DALLONGEVILLE, Mélanie LEVY, Philippe KNIBIELY, Jean-Yves GEORGES.

- **Programme « Tortues de Floride en Corse » (2009/2012) : bilan et perspectives**

Richard DESTANDEAU, Valérie BOSCH, Julie PEINADO & Romain FLEURIAU.

Conservatoire d'Espaces Naturels de Corse.

- **Deux projets d'application d'outils d'écologie moléculaire à la cistude: détection par ADN environnemental (eDNA) et détermination de l'âge par la taille des télomères**.

Rémi WATTIER (Université de Bourgogne, Ub), Tony DEJEAN (SPYGEN), Anthony OLIVIER (Tour du Valat, TdV) et Sébastien FICHEUX (Ub et TdV).

Vendredi 8 février

09h00 - 10h00 : suivi (suite) et autres présentations

- **Projet de cartographie des sensibilités cistude dans le Gers**. Laurent BARTHE / Nature Midi-Pyrénées.

- **Présentation à préciser**. Marc CHEYLAN / Centre d'Ecologie Fonctionnelle & Evolutive.

10h15 - 10h30 : pause

- **« *Emys orbicularis* – Un puzzle de diversité dans le Golfe du Lion »**. Carmen PALACIOS, Guillen MOLLERA, Nadine BOULOT, Thomas GENDRE, Olivier VERNEAU. CEFREM / Université de Perpignan / CEN-LR.

- **« Diversité parasitaire des cistudes en milieu naturel : quels enseignements en tirer ? »**. Laurent HERITIER, Carmen PALACIOS et Olivier VERNEAU.

- **Présentation d'un avant projet de programme Life Cistude**. Anthony OLIVIER et Frédéric ROBIN / Tour du Valat / LPO.

11h30 : un point sur le Plan national d'Actions...

- **La déclinaison régionale du PNA cistude, un moteur pour les initiatives locales autour de l'étang de Berre**. Vincent RIVIERE / SIBOJAI - gestionnaire de l'Etang de Bolmon.

- **L'action "suivi sanitaire" du P.N.A. : stratégie et état d'avancement**.

Laurent BARTHE / Nature Midi-Pyrénées.

12h30 - 14h00 : pause repas

(possibilité de se restaurer tous ensemble dans un restaurant à proximité)

14h00 - 17h00 : visite sur le site du sud du lac du Bourget,

Observatoire du sud du lac.

14h00 - 17h00 : comité de pilotage du PNA cistude

Pour les membres du copil du PNA.

Présentations Posters

Etude de la population de cistude d'Europe dans l'embouchure du Fango.

Richard DESTANDEAU, Valérie BOSCH, Julie PEINADO & Romain FLEURIAU

Conservatoire d'Espaces Naturels de Corse

Situation alarmante pour les populations de cistudes de Minorque (Baléares).

Alain VEYSSET, Emys Conservation.

LA BIODIVERSITE EN DIRECT, SAMEDI 27 AVRIL 2013 AU BORD DU LAC DU BOURGET (73)

Dans le cadre du plan national d'action cistude, le Conservatoire d'espaces naturels de Savoie organise la réintroduction de tortues cistudes, espèce en voie de disparition en France.

La tortue Cistude d'Europe devient une véritable mascotte d'un **projet global de préservation de l'environnement à grande échelle**. Sa réintroduction en milieux humides nécessite la sauvegarde de cet espace et le développement de conditions propices à sa survie, notamment en Savoie. Cet animal aujourd'hui protégé est **menacé de disparition** avec plus de 50% de zones humides disparus en France.

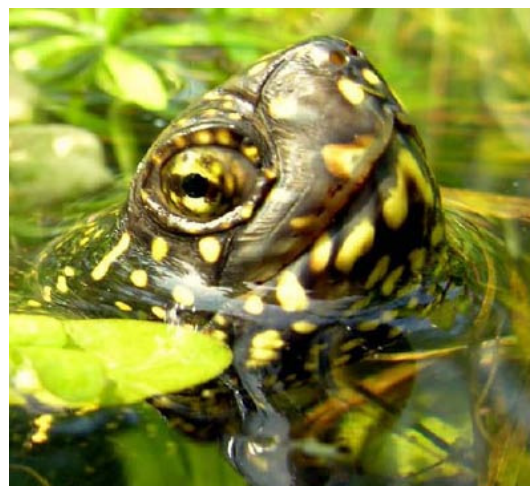
Le CEN Savoie s'appuie sur son rôle de gestionnaire de territoires et de missionnaire pédagogique pour entraîner professionnels, scientifiques, collectivités et associations mais aussi grand public, scolaires et acteurs de terrain et contribuer à la **valorisation du territoire** et la **protection du patrimoine naturel**.

Programme du Samedi 27 avril 2013, LAC DU BOURGET (73)

- **9H20** : RDV à l'embarcadère de Portout pour un trajet en bateau vers l'Abbaye-d'Hautecombe,
 - **10H15** : **table ronde sur le thème de " Pourquoi et comment réintroduire les espèces ? "** - Abbaye-d'Hautecombe,
 - la cistude et le CEN Savoie,
 - l'apron (poisson endémique du Rhône) et le CEN Rhône-Alpes,
 - le gypaète (vautour en cours de réintroduction dans les Alpes) et Asters,
 - autres projets présentés par les parcs animaliers.
- 12H** : trajet de retour en bateau jusqu'à la Baie de Portout (nord du Lac du Bourget),
- 12H40** : **buffet** à l'auberge " les Impressionnistes ",
- 14H** : **lâcher de jeunes cistudes** équipées d'un radio-émetteur - Baie de Portout,
- 15H** : **Visite d'un site renaturé**

CONTACT ORGANISATION / Conservatoire d'Espaces Naturels de Savoie : 04 79 25 20 32

www.cen-savoie.org



LES TORTUES DANS L'ALLIER (PAGE NATURE)

Tout près de Varennes sur Allier, vivent des colonies de cistude d'Europe .Cette tortue aquatique en voie de disparition fait l'objet d'un plan national d'actions depuis 2010.



Les cistudes d'Europe sont en voie de disparition. En Auvergne, les dernières colonies se trouvent dans l'Allier. Tout près de Varennes sur Allier, vivent des colonies de cistude d'Europe .Cette tortue aquatique, dont l'espèce tend à disparaître, fait l'objet d'un plan national d'actions depuis 2010. Elles sont comptées et équipées d'émetteurs pour suivre leurs pontes et définir leurs lieux de vie.

Les cistudes d'Europe sont en voie de disparition. En Auvergne, on trouve les dernières colonies de cette variété de tortues dans l'Allier.

Par Stéphane Mocozet
Publié le 15/11/2012 | 16:11, mis à jour le 15/11/2012 | 16:15

Source :
<http://auvergne.france3.fr/2012/11/15/les-tortues-dans-l-allier-page-nature-144134.html>

COLONIE D'EMYDES LÉPREUSES, TORTUES EN VOIE DE DISPARITION, DECOUVERTE DANS LE TÊT

Des tortues d'eau douce, - tortugas de rierol en catalan -, endémiques, en voie de disparition, une station composée d'une douzaine d'individus de l'espèce *Mauremys leprosa*, ou « émyde lépreuse », déjà répertoriée dans les pays du Maghreb, la péninsule ibérique et le département des Pyrénées-Orientales, - dont leur existence n'est avérée que sur les cours d'eau de La Baillaury, du Tech et en partie basse de l'Agly -, ont été identifiées sur la partie basse du fleuve La Têt. Son habitat, rives couvertes d'une végétation dense, herbacée et arborée offrant protection contre les prédateurs terrestres et contre le soleil trop vif, est centré, sur la surface aquatique, entre Bompas et Villelongue de la Salanque.

L'émyde lépreuse découverte en Salanque est de couleur verte, jaune et orange. Principalement carnivore opportuniste, omnivore par défaut, elle semble avoir trouvé, dans les zones d'eau stagnante de la Têt, une alimentation assortie, de jour comme de nuit, sur terre et dans l'eau, de têtards, de jeunes anoues, de tritons, de mollusques, de vers, d'insectes, de poissons, de cadavres de vertébrés, - mammifères et oiseaux -, d'invertébrés, d'amphibiens et de leurs larves, et de plantes aquatiques.

Alors que les mensurations des mâles, peuplant la colonie, ne dépassent pas 19 centimètres, pour un poids de 750 grammes, certains spécimens femelles atteignant une taille de 25 centimètres de long et pèsent jusqu'à 1,5 kilogramme.

L'émyde lépreuse

L'émyde lépreuse est un reptile pourvu d'une carapace dorsale, - la dossière -, de couleur ocre-brun à verdâtre, à l'état adulte, carénée sur les écailles costales et vertébrales et marron tachée de rougeâtre ou jaunâtre, chez les juvéniles, et d'une carapace ventrale, - le plastron -, osseuses.

Leur plastron jaunâtre qui n'est pas articulé, est orné d'une bande noire centrale irrégulière qui s'estompe avec l'âge. Leur tête, - présentant une tache orangée derrière l'œil chez les jeunes qui peut entraîner des risques de confusion avec les tortues américaines exotiques -, leur cou, leurs membres et leur queue sont striés de traits longitudinaux jaunes.

L'émyde lépreuse, tortue aquatique, vivant dans ou à proximité immédiate de l'eau douce, est présente, du niveau de la mer jusqu'à 1.250 mètres d'altitude, dans la majorité des pays du Grand Maghreb, - Nord-Ouest de la Lybie, Tunisie, Algérie, Maroc, Mauritanie et Mali -, ainsi que dans la péninsule Ibérique, - Sud-Ouest, Sud, Centre et Est de l'Espagne et Nord-Est, Nord-Ouest et Sud du Portugal -.

En France, elle se rencontre à l'état naturel, avec des populations conséquentes, dans certains ruisseaux des environs de Banyuls sur Mer, et les cours d'eau de La Baillaury, - ayant migré, par leur propres moyens, du Rio Orlina sur le versant espagnol, car la Baillaury est le seul cours d'eau, situé près de la frontière, qui possède de l'eau toute l'année -, du Tech, de la Têt et en partie basse de l'Agly - Pyrénées-Orientales -, et des observations éparses en Languedoc, - Aude, Hérault et Gard où des preuves archéologiques, dans la grotte de la Salpêtrière, à Remoulin, attestent sa présence dès l'Holocène, au Chalcolithique, vers 4.000 ans avant J.C. -

Des constatations isolées, en Pyrénées-Atlantiques et en Aquitaine, sur des cours d'eau des Landes, ainsi qu'en Gironde, concernent, très certainement, des tortues échappées de captivité ou des individus probablement relâchés volontairement par l'Homme.

Bien que l'espèce, de la famille des tortues d'eau douce cryptodires, - les Geoemydidae -, tende à préférer des eaux peu profondes à faible courant avec une végétation dense, il n'est pas exclus de la rencontrer dans des habitats aquatiques variés, - bras morts, canaux, fossés, étangs, mares, fonds vaseux, amoncellements de débris végétaux, rivières, fleuves et marais littoraux -, et il est très commun de la trouver dans des rivières permanentes et dans n'importe quel réservoir. Sa plasticité écologique importante lui permet de coloniser n'importe quel type d'écosystème aquatique y compris ceux pollués.

L'espèce, hibernant de Décembre à Mars, dans une retraite plus au moins profonde, - tas de débris végétaux, terrier, souches, tas de pierres... -, est surtout active, principalement de jour ou au crépuscule par les grandes chaleurs d'été, de Mars à Octobre, mais certains individus, surtout des mâles, peuvent l'être durant les jours chauds et ensoleillés d'automne et d'hiver.

La maturité sexuelle de l'émyde lépreuse apparaît vers les 7 ou 8 ans pour les femelles, - longueur de la dossière environ 110 millimètres -, les 4 ou 5 ans pour les mâles, - longueur de la dossière environ 90 millimètres -, l'accouplement s'effectue dans l'eau au printemps. À l'aide de ses pattes arrières, la femelle creuse un trou d'une dizaine de centimètres à terre, le plus souvent en début de soirée, durant les mois de mai et juin.

La femelle va pondre des œufs blancs à coquille dure, d'Avril à fin Août, entre 3 et 12, voire jusqu'à 22, plus communément entre 3 et 14 demandant une incubation de 60 à 90 jours selon les conditions météorologiques, une seconde ponte pouvant être déposée en automne. Le trou rebouché, le soleil assure la bonne incubation des œufs.

Les jeunes tortues sortent de terre en Septembre ou au printemps suivant, si les conditions, - absence ou retard des pluies -, ne sont pas favorables. À leur naissance, leur dimension varie de 22,7 à 26 millimètres de long pour un poids de 5 grammes. Leur queue atteint 20 millimètres de long.

A part l'homme qui agit directement, - captures, destructions volontaires -, ou indirectement, - modification des milieux -, les prédateurs principaux des émydes lépreuses sont les mustidés, - fouines, blaireaux, loutres... -, et les oiseaux, - rapaces, corvidés... -, qui s'attaquent aux nouveaux-nés et aux juvéniles ainsi qu'aux œufs.

Protection de l'espèce, *Mauremys leprosa*.

Au niveau international, l'espèce est inscrite à l'annexe II, espèce de faune strictement protégée, de la Convention de « la vie sauvage et du milieu naturel » de l'Europe, - Berne 1979 -. En France, l'espèce est strictement protégée ainsi que son habitat. L'émyde lépreuse est en effet visée par l'article 2 de l'arrêté du 19 novembre 2007 qui fixe les listes des amphibiens et des reptiles protégés sur l'ensemble du territoire et les modalités de leur protection, en application des articles L411-1 et 2 et R.411-1 à 14 du code de l'environnement. De plus, l'espèce est citée à l'arrêté du 9 juillet 1999 fixant la liste des espèces de vertébrés protégées menacées d'extinction en France. Ceci a pour conséquence le fait que les dérogations à la loi de stricte protection des espèces prévus à l'article L411-2 du code de l'environnement sont octroyées, non par les préfets, mais par le ministre en charge de l'environnement.



Source :

<http://www.come4news.com/colonie-demydes-lepreuses,-tortues-en-voie-de-disparition,-decouverte-.dans-le-tet-380933>
15-11-2012 20:32 - 833 visites - Ecologie, Animaux, Nature - Ecrit par CATALAN66270 - Lire son flux

PERPIGNAN, UNE TORTUE LEPREUSE RARE

Le département serait-il devenu motophobe ?

Le 22 avril à 6h00 par Recueillis par Guy Bosschaerts



Suite à l'annulation de l'enduro de Millas, la Fédération française de moto a déposé un recours administratif. L'ONCFS avait pourtant travaillé avec les organisateurs. L'enduro de Millas, prévu le 24 février dernier, se présentait sous les meilleurs auspices, plusieurs champions internationaux s'y étaient d'ailleurs inscrits. Toutes les autorisations semblaient avoir été accordées jusqu'au moment où... un rapport de l'Office national de la chasse et de la faune sauvage est venu faire vaciller l'édifice. Quinze mois de travail et un lourd investissement matériel définitivement perdus. "Nous sommes régis par les lois nationales, non ? Alors pourquoi peut-on organiser des compétitions d'enduro ailleurs et pas ici ?, interroge Jean-Louis Guillem, président du comité départemental motocycliste. Les P.-O. ne sont pas qu'un refuge de retraités. Il faut que les gens vivent. Nous avons dix concessionnaires moto et quatre équipementiers. Ce sont des emplois ! Mais il semblerait que le département soit devenu un peu 'motophobe'. En tout cas depuis l'incursion de l'ONCFS dans le milieu, depuis environ deux ans. Avant, on faisait une demande d'épreuve sportive, elle passait en commission de sécurité, on demandait l'avis des élus et en principe on obtenait l'autorisation. Maintenant, l'ONCFS fournit des rapports consultatifs sur lesquels s'appuient les institutionnels et on nous barre la route". Dans le cas de Millas, Jean-Louis Guillem affirme avoir travaillé dur 15 mois durant, obtenu les accords des élus, consultés 47 propriétaires et avoir eu leur approbation signée. Idem pour la commission de sécurité routière. Pire, il avait contacté les commerçants qui avaient prévu d'ouvrir leurs établissements, fait publier des affiches, obtenu des sponsors et encaissé les inscriptions. 150 pilotes, dont une dizaine de champions internationaux, des figures internationales ou encore des concurrents du Dakar. "Il a fallu tout rembourser ! Tout ça parce que l'ONCFS a écrit un rapport défavorable disant que nous traversions des zones sensibles. Mais nous les avons invités à nos réunions, ils ont eux-mêmes refait deux fois le tracé du circuit. Nous avons suivi toutes leurs directives... Bref, du coup la préfecture n'a pas donné son aval". En conséquence, il a été décidé qu'un recours en justice serait déposé au tribunal administratif de Montpellier par le biais de la fédération française de moto pour "excès de pouvoir". "Nous ne sommes pas des procéduriers, conclut Jean-Louis Guillem, mais je ne me résigne pas devant l'injustice. Je veux juste que les lois existantes soient appliquées". "En fait, sur le terrain, nous sommes les yeux de la sous-préfecture et de la Direction départementale des territoires et de la mer. Nous nous bornons à écrire un rapport, purement consultatif et nous ne donnons pas d'avis, explique un agent de l'ONCFS. En lisant notre rapport la DDTM a émis un avis défavorable car le circuit empruntait des parties d'espaces naturels non ouvertes à la circulation. Nous avons travaillé en bonne entente avec les responsables de l'événement et ils ont changé, il est vrai, l'itinéraire. Mais, malgré nos explications, ils ont maintenu des passages dans des zones protégées à fort intérêt faunistique. Notamment un endroit en bord de Têt où vit la tortue émyde lépreuse, une espèce très rare qu'on ne trouve en France que dans les P.-O. et un passage de ruisseau comportant des plantes humides rares. Si 150 motos y passent deux fois, un écosystème sera très endommagé... En fait, ces trajectoires avaient été maintenues, malgré notre discussion avec les responsables. La sous-préfecture a donc pris la décision qu'elle estimait la meilleure. Nous pensions que ces endroits seraient évités et nous avons donc été très surpris de l'annulation de l'enduro". En janvier dernier, après des mois de travail, Jean-Louis Guillem président du Moto club millassois présentait l'affiche de ce qui devait être le premier enduro moto de Millas.

CONSERVATION DES TORTUES D'EAU DOUCE AU PORTUGAL

- . Programmes d'élevage en captivité
- . Ecologie et génétique des populations appliquées à la conservation
- . Espèces invasives – problèmes et solutions
- . Epidémiologie
- . Projets de conservation
- . Politique de sensibilisation du public

Il est important que l'activité Cistude (mais aussi Emyde et Tortue à tempes rouges) en France s'exprime le plus possible lors de cette manifestation.

Des communications ou posters qui gardent pour autant toute leur place dans nos journées techniques des 7-8 février 2013 !

Ce colloque n'est pas encore de pré-programme à ce jour, contact : life.turtles@parquebiologico.pt

22 · 23 · 24 May 2013
Gaia Biological Park, PORTUGAL

Public awareness and policy

Information and pre-registration: life.turtles@parquebiologico.pt

PARIS : UNE TORTUE CHINOISE DECOUVERTE DANS LE LAC DU PARC MONTSOURIS

Le Parisien

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Paris : une tortue chinoise découverte dans le lac du parc Montsouris

C.C. | Publié le 01.12.2012, 10h36

ce que vos amis recommandent.



Parc Montsouris (XIVe). Cette tortue à carapace molle mesure entre 30 et 40 cm. Elle a sans doute été abandonnée par un propriétaire indélicat. | [\(DR.\)](#)

 9 réactions | Réagir

Drôle de trouvaille! Les jardiniers de la Ville ont découvert au fond du lac du parc Montsouris (XIVe) une tortue à carapace molle d'origine asiatique. « Elle a vraiment un look préhistorique », s'étonnait Celia Blauel, conseillère municipale écologiste du XIVe arrondissement.

La bête, jaunâtre, presque albinos, a été identifiée comme un *Pelodiscus sinensis*. Elle viendrait de Chine. Et mesure entre 30 et 40 cm.

Que faisait l'intruse en plein Paris? « Malheureusement, c'est un cas de figure classique, regrette Fabienne Giboudeaux, adjointe au maire de Paris chargée des espaces verts. Cette tortue qui vient sans doute d'une animalerie a été laissée par un propriétaire indélicat. Nous avons beaucoup d'abandon de tortues, mais rarement cette espèce-ci qui est rare et chère, et grossit vite... » Le *Pelodiscus sinensis* se négocie une cinquantaine d'euros.

Les jardiniers de la Ville doivent souvent faire face aux abandons. Le hit-parade du bestiaire parisien a une géographie : « Nous avons l'écureuil de Corée retrouvé au square du Temple (IIe) et dans les bois, détaille Fabienne Giboudeaux, les poissons rouges dans les mares des jardins du XXe, les piranhas dans la Seine, les chats au jardin des Halles, à Bagatelle et au Père Lachaise, les perruches au parc Montsouris et au bois de Vincennes. »

Reste que la tortue à carapace molle qui barbotte toute seule dans son lac du XIVe arrondissement et ne va pas se reproduire a été jugée non dangereuse. Il a donc été décidé de la laisser couler des jours paisibles au parc Montsouris.

Fabienne Giboudeaux, elle, est plus pessimiste : « C'est une espèce exotique. Ici, elle aura du mal à s'adapter. Elle ne va pas faire long feu. »

PETITION TO SAVE BLANDING'S TURTLE

Target: Wisconsin Department of Natural Resources

Sponsored by: Lynn Hamilton

The reclusive Blanding's turtle is still endangered throughout much of its habitat. So why has the Wisconsin Department of Natural Resources recommended it be removed from the state's endangered species list?

A secretive resident of smaller marshes and vernal pools, the Blanding's turtle is beloved of herpetologists for its bowl-like carapace and distinctive yellow spots. The females of the species need at least fourteen years to reach the age of motherhood. This quiet creature is threatened from many sides: its habitat is fragmented by construction, especially roads, it is frequently run over by cars and even targeted for destruction by family pets.

Tell the Wisconsin Department of Natural Resources not to delist the Blanding's turtle!



<http://www.thepetitionsite.com/511/143/683/save-the-blandings-turtle/?z00m=20508023>

PACIFIC LEATHERBACKS SEA TURTLES COULD BE EXTINCT IN 20 YEARS

Released: 2/26/2013 1:50 PM EST

Source Newsroom: [University of Alabama at Birmingham](#)
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Newswise — An international team led by the University of Alabama at Birmingham ([UAB](#)) has documented a 78 percent decline in the number of nests of the critically endangered leatherback sea turtle (*Dermochelys coriacea*) at the turtle's last stronghold in the Pacific Ocean.

The study, published online today in the Ecological Society of America's scientific online journal *Ecosphere*, reveals leatherback nests at Jamursba Medi Beach in Papua Barat, Indonesia – which accounts for 75 percent of the total leatherback nesting in the western Pacific – have fallen from a peak of 14,455 in 1984 to a low of 1,532 in 2011. Less than 500 leatherbacks now nest at this site annually.

Thane Wibbels, Ph.D., a professor of reproductive biology at UAB and member of a research team that includes scientists from State [University](#) of Papua (UNIPA), the National Oceanic and Atmospheric Administration (NOAA), National Marine Fisheries Service and the World Wildlife Fund (WWF) Indonesia, says the largest marine turtle in the world could soon vanish.

“If the decline continues, within 20 years it will be difficult if not impossible for the leatherback to avoid extinction,” said Wibbels, who has studied marine turtles since 1980. “That means the number of turtles would be so low that the species could not make a comeback.

“The leatherback is one of the most intriguing animals in nature, and we are watching it head towards extinction in front of our eyes,” added Wibbels.

Leatherback turtles can grow to six feet long and weigh as much as 2,000 pounds. They are able to dive to depths of nearly 4,000 feet and can make trans-Pacific migrations from Indonesia to the U.S. Pacific coast and back [again](#).

While it is hard to imagine that a turtle so large and so durable can be on the verge of extinction, Ricardo Tapilatu, the research team's lead scientist who is a Ph.D. student and Fulbright Scholar in the UAB Department of Biology, points to the leatherback's trans-Pacific migration, where they face the prevalent danger of being caught and killed in fisheries.

“They can migrate more than 7,000 miles and travel through the territory of at least 20 countries, so this is a complex international problem,” Tapilatu said. “It is extremely difficult to comprehensively enforce fishing regulations throughout the Pacific.”

The team, along with paper co-author Peter Dutton, Ph.D., discovered thousands of nests laid during the boreal winter just a few kilometers away from the known nesting sites, but their excitement was short-lived.

“We were optimistic for this population when year round nesting was discovered in Wermon Beach, but we now have found out that nesting on that beach appears to be declining at a similar rate as Jamursba Medi,” said Dutton, head of the NOAA Southwest Fisheries Science Center's Marine Turtle Genetics Program.

The study has used year-round [surveys](#) of leatherback turtle nesting areas since 2005, and it is the most extensive research on the species to date. The team identified four major problems facing leatherback turtles: nesting beach predators, such as pigs and dogs that were introduced to the island and eat the turtle eggs; rising sand temperatures that can kill the eggs or prevent the production of male hatchlings; the danger of being caught by fisheries during migrations; and harvesting of adults and eggs for food by islanders. Tapilatu, a native of western Papua, Indonesia, has studied leatherback turtles and worked on their conservation since 2004. His efforts have been recognized by NOAA, and he will head the leatherback conservation program in Indonesia once he earns his doctorate from UAB and returns to Papua.

He has worked to [educate](#) locals and limit the harvesting of adults and eggs. His primary focus today is protecting the nesting females, eggs and hatchlings. A leatherback lays up to 10 nests each season, more than any other turtle species. Tapilatu is designing ways to optimize egg survival and hatchling production by limiting their exposure to predators and heat through an extensive beach management program.

“If we relocate the nests from the warmest portion of the beach to our egg hatcheries, and build shades for nests in other warm areas, then we will increase hatching success to 80 percent or more,” said Tapilatu.

“The international effort has attempted to develop a science-based nesting beach management plan by evaluating and addressing the factors that affect hatching success such as high sand temperatures, erosion, feral pig predation and relocating nests to maximize hatchling output,” said Manjula Tiwari, a researcher at NOAA's Southwest Fisheries Science Center in La Jolla, Calif.

Wibbels, who is also the Ph.D. advisor for Tapilatu, says that optimizing hatchling production is a key component to leatherback survival, especially considering the limited number of hatchlings who survive to adulthood.

“Only one hatchling out of 1,000 makes it to adulthood, so taking out an adult makes a significant difference on the population,” Wibbels said. “It is essentially the same as killing 1,000 hatchlings.”

The research team believes that beach management will help to decrease the annual decline in the number of leatherback nests, but protection of the leatherbacks in waters throughout the Pacific is a prerequisite for their survival and recovery. Despite their prediction for leatherback extinction, the scientists are hopeful this species could begin rebounding over the next 20 years if effective management strategies are implemented.

MAN PRESUMPTUOUSLY KIDNAPS 13 PERCENT OF AN ENTIRE TURTLE SPECIES

By Sarah Miller, Gristlist 3/28/13

Tell me you wouldn't steal 13 percent of the living population of these guys.

There are only 400 — that's 400, a number you can count to in less than five minutes — turtles in the whole entire world that can call themselves *Astrochelys yniphora*, or ploughshare turtles (if turtles could speak, or could in fact do anything other than eat lettuce with stupid expressions on their faces). So naturally, since humans are perhaps even dumber than how dumb turtles look eating, a man took it upon himself to try to smuggle 54 of these turtles through the Bangkok airport. That's 13 percent of the ploughshare turtles in the world.

The man seems to have been in cahoots with a woman who traveled from Madagascar to Thailand with the turtles. She brought them in, he picked them up, and, just in case later on you want to cast the movie *Stupid Turtle Stealers* at some point, she is 25 and he is 38.

(Editor- The number is false. There have always been a small population of ploughshare tortoises due to their specific habitat needs)

There used to be millions of ploughshare turtles, which are found only in Madagascar. But people are really into them, because they're neat looking, so their numbers have dwindled over time to the now rather remarkable and depressing number of 400. This is partly the fault of the pet trade, which is where these 54 turtles were headed — which is good news, because it means they were alive when authorities found them. They must be shipped back to Madagascar as quickly as possible since the Thai climate is not ideal for them and also since each one of their lives is considered very precious. We are thinking of you, little turtles. You can make it.

RED-EARED SLIDERS COME TO CHINA (1/6)

They're everywhere, they're everywhere!!

In addition to turtles shipped in for direct sale in food markets, in the 1980's China began to import North American turtles in mass in order to establish turtle farms. In the early period of China's growing demand for turtles red-eared sliders (*Trachemys scripta elegans*) were not held in high regard for food or use in traditional medicine, and even today they are not regarded as highly as native hard-shelled species. Because of the rapid increase in the country's consumption of turtles, and dwindling supply this bias was overshadowed by demand. Few of China's native species do as well as red-eared sliders in commercial farming operations. Red-eared sliders could be obtained inexpensively from the turtle farming operations in the southeastern United States, and as these turtles were hardy, easy to raise, and grew quickly, they became one of the focal species for importation and use in the development of a number of turtle farms. The turtles are bred for use as both as food and pets. Farmed two-year old sliders can achieve weights exceeding one kg. Turtles marketed as food sell for CNY 9-15 per 500 grams (\$1.36-2.27 US). Hatchlings sold as pets go for CNY 3-5 (45 to 75 cents US).

Unlike many areas of the world where they eventually became regarded as injurious exotic wildlife, red-eared sliders were not imported in any number into China prior to the 1980's. In hindsight it is easy to explain the speed and the magnitude at which problems have developed. The reason why red-eared sliders have become a major exotic animal issue and are threatening aquatic systems at an alarming rate is simply in the numbers. In addition to being an ecologically tolerant generalists and a hearty species, these turtles have both been imported into and bred in China in astronomical numbers. They have become naturalized in the wild in three primary ways 1) release of unwanted pet, 2) escape from turtle farms (mostly resulting from floods), and 3) constant release of these turtles by Buddhist as part of their religious culture.

Economic and Cultural use of Red-eared sliders:

Use as food: A significant portion of the Chinese populous commonly consumes turtles and other wildlife (Yao and Cheng 2007). The Guangdong Forestry Bureau conducted a survey where they documented that more than half the people in the city of Guangzhou eat wildlife on a regular basis. Their survey documented that 45.4% believe that wild animals are more nutrient rich than domestic food products, 37% tried it out of curiosity, and 12% said it was to demonstrate their wealth and status. In addition to the general public a large portion of government officials ate wildlife because it was a status symbol (Guangdong wildlife smuggling investigation, Southern Weekend 2007). While the less fortunate are unable to afford expensive wildlife, including the more rare species of turtles, they are able to substitute less costly creatures such as red-eared sliders.

There are many people in China that do not eat turtles, in fact most don't; just as most Chinese don't eat dogs. If everyone ate turtles the consumption rate would be 10 times higher than it is today. But because many Chinese people believe that eating turtles is important for maintaining health and fitness they are prepared in soups, and often the soup is supplemented with traditional medicines. This tradition goes back at least one thousand years. Previously people caught or purchased wild stocks or locally grown native species. Due to the growing demand, improving economy, and decline of most native species, China first began to import large numbers of turtles from neighboring countries to the south (van Dijk et al. 2000). As demand continued to increase, turtle farming became an important component for the supply of market turtles. During the time the farms were developing, continuing demand lead to importation of turtles from other regions, including the United States. A number of North American species were farmed; the most common ones being snapping turtles (*Chelydra serpentina*), Florida softshells (*Apalone ferox*), and red-eared sliders. They grow fast, reproduce readily, and can be farmed at a relatively low cost. Sliders quickly became one of the country's major farmed species.

Turtle is particularly favored in Guangdong province and accordingly it has the largest number of active turtle farms. Guangxi province, the city of Wuhan and areas surrounding Shanghai are also places where turtle consumption is high. Today more than four to five hundred million softshell turtles and sixty million hard-shelled turtles are consumed annually. Fifty million of these are red-eared sliders (Wang and Yang 2009). It interesting to note that red-eared sliders are also imported in 'huge numbers' from southeastern US turtle farms into the Asian food markets in California and as a result have become an invasive nuisance (Maclachlan 2011).

Traditional medicine: Red-eared sliders are not considered species useful in traditional medicine because they are not native and are so inexpensive as to be believed inferior. However, unscrupulous businessmen market their parts as substitutes for those of native hard-shelled turtles as the more desirable native species demand a good price and are difficult to obtain. It is impossible to document to what extent this is done, but it is obvious that the practice is common. It is interesting to note that Hong et al. (2008) tested the nutritional benefits claimed by the practitioners of traditional Chinese medicine. They found that other animal products had similar properties and that the turtles had no specific attributes that would justify their mass exploitation and threats to the survival of the native fauna. In China's newspapers and other media outlets as well as scientists and nutritionists have repeatedly pointed out that wild animals have no additional food or medical value when compared to chicken, beef or pork. Many people do not believe this as government officials and the wealthy continue to eat wildlife, and prefer the rarest species. They also believe that wild turtles are superior to farm raised ones in terms of nutrition and medical value.

RED-EARED SLIDERS COME TO CHINA (2/6)

Use as pets: Turtles are widely sold as pets throughout China. Because they are regarded as more hardy and are less expensive than other species hatchling and young red-eared sliders have become the turtle of choice in pet markets. This is particularly true for first time buyers as information on the care of freshwater turtles as household pets is generally lacking and most people are reluctant to try one of the more expensive types. The retail cost of a single 30-50 mm slider is about CNY 3-5 (45-75 cents US). [U.S. prices for hatchlings are currently about 45 cents wholesale and \$10-15 retail]

As in the US, Chinese buyers are not usually aware that these turtles can live a long time and quickly outgrow their containers. The burden of daily changes of smelly water results in a declining interest, and the purchase of containers with increased capacity and filters does not seem practical for such an inexpensive pet. People who are successful in keeping the sliders alive of any period of time often up-grade to more expensive and difficult to maintain species. This includes farm-raised native and various imported species. At such times the sliders are given to friends or more often released into the wild. Death of a pet turtle is considered to bring bad luck, so sick sliders are often released prior to dying.

Cultural and Religious use: Contributing greatly to the establishment of red-eared sliders throughout China is a cultural/religious history going back at least 2,000 years. Buddhists believe that releasing animals back into the wild is a means of achieving blessing, and turtles and tortoises are considered as the most karmaically valuable animals to release. Because of this they commonly release store purchased birds, fish, turtles and other creatures. As a direct result of the availability and low cost of farm bred red-eared sliders, they have become a species of choice for release. Due to a lack of even a basic understanding of the need of turtles the creatures are not necessarily released into appropriate habitats. Tortoises often end up in rivers, and various turtles end up in the sea. Releases in the dead of winter are common. The people are not particularly concerned with the survival of the animal; to receive blessings they simply buy and release them. This same practice also occurs in the US and Canada with goldfish and hatchling sliders being the most common subjects for release (see Maclachlan 2011).

At other times Buddhist will purchase and release sliders when family members are sick, believing that will help with the healing process. Releases may occur daily until the person is fully recovered. This practice is feasible because of the low cost of the turtles. Twenty young sliders can be purchased for the US equivalent of \$15 (CNY 100). Their releases are not limited to hatchlings, often adult and sub adult sliders are released en mass. Sometimes Buddhists will carve messages into the shells of turtles prior to release. At times turtle collectors will follow Buddhist to their sites of release and capture many of the released turtles as soon as the ceremony is complete.

Turtle farms and the magnitude of commercial development:

Large-scale turtle farms originating in Guangxi, Guangdong and Hainan Provinces in the 1980's were almost exclusively ones raising Chinese softshells (Shi et al. 2004) and the number of freshwater turtle farms continued to subsequently increase. As the softshell market became saturated the operations turned to other species, particularly hard-shelled ones (Shi and Parham 2001, Chen et al 2000). The market went in two directions -- the more valuable native species and inexpensive imports such as red-eared sliders. At first the sliders were simply purchased from the US as hatchlings and raised to a marketable size, by 2003 the farms started their own massive breeding programs for the sliders. At first the quantities produced were small as there were relatively few adult sliders in the country, but production increased rapidly. Today the numbers of sliders produced are impressive. By 2010 Chinese turtle farms in five provinces produce as many as 50 million red-eared sliders in a single year (Wang and Yang 2009), this was up from 20 million in 2005 (Wu and Zeng 2007). Red-eared sliders accounted for 1/3 of the turtles produced in Hainan Province (Li 2008). In addition to the farms' annual output several million red-eared sliders continue to be imported from the US each year, this is down from 6-8 million imports in 2005 (Wu and Zeng 2007).

From the perspective of US turtle farms China's shift from import to farming of red-eared sliders had a considerable economic impact. In Louisiana alone there were over 80 turtle farms, by 2010 only 48 were still in business and this number probably continues to decline. China began purchasing fewer turtles each year as they built up their breeding stock. In fact they are probably competing with US farms exporting pet turtles to various countries lacking appropriate import regulations. Many US turtle farmers took out loans based on the boom in the 1980's to early 1990's when the Chinese were purchasing hatchlings for over one dollar (US) each. As the price dropped (its currently about 20 cents) and the demand decreased many of the newer farms went out of business leaving only the older established farms that had dependable markets in other countries.

In China turtle farms are primarily for food production. The major species currently farmed, in order of importance, are Chinese softshells (*Pelodiscus sinensis*), striped-necked turtles (*Mauremys sinensis*), red-eared sliders, Reeves turtles (*Mauremys reevesii*), and yellow pond turtles (*Mauremys mutica*) (Shi et al 2007, 2008). Subsequently, red-eared sliders have moved into the number two position. Because of their low cost the most commonly consumed species today are the farmed Chinese softshells, red-eared sliders, and Reeves turtles.

RED-EARED SLIDERS COME TO CHINA (3/6)

The number of commercial turtle farms in China is phenomenal. Shi et al. (2007) state the number of farms to be 1,000 with a stated value exceeding 1 billion US dollars. By the time of publication these authors recognized that their 2002 survey greatly underestimated the magnitude of the country's farming effort. We suggest the actual number could be as high as 120,000-150,000 individual farms. Shi et al (2008) recognized and addressed the conservative nature of their assessment and the discrepancy in their figures and our results in part from the lower number representing officially recognized farms; the larger total number reflects the undocumented farming operations that fall under the radar of the country's tax office. We can supplement the survey of Shi et al (2008) with information extrapolated here from a number of independent sources: Guangxi Province, more than 100,000 turtle farms (Animal/Fisheries and Veterinary Bureau of Guangxi, Liang Yuxiang 2010), 400 in Hainan Province with 270 hectares of farm ponds (Association of Turtles of Hainan Province, Li Jia 2008), 2,000-5,000 farms in Guangdong Province with an annual output of 30,000 tons and a farm area of 4,000 hectares (Association of Turtle Farms in Guangdong Province, and Liu 2008), 10,000 farms in Zhejiang Province (Turtle Association of Zhejiang), 1,000 farms in Hubei Province (Ezhou City Fisheries Bureau 2008), additional turtle farms occur in Hunan and Jiangsu Provinces and still others in northern regions. These numbers do not include small backyard farming operations. The farms are particularly numerous in Guangxi Province where the local government has supported the development of small turtle farms for poor farmers and a large unemployed urban population. Small loans and technical support are provided. Other provincial governments are likewise promoting turtle farms as evidenced by a 2007 publication of the Fisheries Bureau of Hubei Province titled "Make Hubei turtles and soft-shelled turtles 'climb' to nationwide."

Economics and the future of red-eared sliders in turtle farms:

Hainan has the warmest climate for turtle farms and accordingly they have the earliest hatch and get the highest market price (CNY 2.7) for pet market turtles (Li 2008). This is followed by hatching several months later in Jiangsu and Zhejiang Provinces and market prices begin to decline. They reach their lowest value by fall (CNY 1.2-1.5).

The cost of domestic breeding is considerably less than importation of US bred stock and with the growing number of farms the retail value of hatchling red-eared sliders continues to decrease. The value was at its highest point in 2003 (CNY 11-12; \$1.75 US) and has declined steadily ever since (CNY 5-6 2004, CNY 3-4 2005, CNY 2-3 2006) and by 2010 reached the low point of (CNY 1.2; 18 cents US). The profit margins have become very thin and are predicted to fall further. In less than a decade their value has become reduced to that of hatchling Chinese softshell hatchlings a market that was saturated in the previous decade. Liu (2008) reviews the changing situation in Guangdong Province. The price this year for hatchlings is projected to be CNY 1 (12 cents US). Due to low labor cost the current production cost for hatchlings is CNY 0.6 (7 cents US). Because of the rampant increase in the number of turtle farms, the increased number of sliders produced, and the total lack of regulation, the market is not expected to recover, and profits will be impossible without increased production. This is a business model that can only be predicted to eventually crash.

Conservation issues and other problems:

Introduction and establishment: Despite the fact that the importation and commercial breeding of red-eared sliders was conducted only on a small scale prior to the last two decades, this species is already established as feral populations in many parts of the country. Major areas with self-sustaining feral populations include the Xiangjian River in Hunan province, the Pearl River in Guangdong province, the Gusu River in Shanghai, West Lake in Zhejiang province, and sections of the Qiantang and Yangtze Rivers. The species is well established in Taiwan, within a period of 20 years they have become the most common turtle. On mainland China farmers and hunters capture all turtles found in the wild, they are even hunted with nets and hooks and lines from waterways in the middle of major cities. This has not only resulted in the endangerment of China's native species but to some degree harvesting pressure has partly controlled the establishment of the introduced sliders. In contrast, turtles in Taiwan are not regularly harvested from the wild and the red-ear slider populations have expanded rapidly.

Taiwan dealers import red-eared sliders every year; these imports are mainly for pets and Buddhism religious release ceremonies. The number of imports has escalated from 150,000 individuals in 1997 to more than 30,000 kg of hatchlings in 2003 (Chen 2008); this represents several million turtles. In 2010 it was estimated that the feral red-eared slider population in Taiwan was about 6 million individuals. Taiwan's Keelung River is occupied throughout by introduced sliders and native species have all but disappeared. In Taiwan large numbers can even be seen in living in fountain pools in public squares. The rapid build up here, vs. mainland China, results from the educated and affluent population's lack of interest in harvesting turtles from the wild. The absence of Government restrictions on both imports and farming of sliders suggest that similar population explosions of sliders will occur on mainland China as the country's economy continues to improve and the landscape becomes less rural.

Misuse, inhumane treatment of sliders: Often the business men running turtle farm operations and those overseeing sales in markets will use syringes to inject substantial amounts of water into turtles' body cavities. This is done to increase the weight of individual turtles and up the turtles' cost. This practice is conducted primarily with red-eared sliders and a few of the other less expensive species.

RED-EARED SLIDERS COME TO CHINA (4/6)

The Chinese people regard the number '8' as an auspicious number and private individuals and those marketing turtles will sometimes wire the shell on small turtles. Over time as the shell grows the forced constriction will cause the shell to form a figure '8.' Due to their hardness this works on red-eared sliders but on most other species the turtles die long before they grow enough to radically deform their shells. Because of the inexpensive nature of sliders mortality is acceptable and is more than compensated by the sale price of the ones that survive. Customers will choose the deformed turtles because 8 is their favorite number, or in some case just because the shell shape is unique. There is little concern for the welfare of the individual turtle.

There are other novel uses of small red-eared sliders. People drill holes in the shell marginals, run a wire through the hole and use the live turtles as key chains. Some individual turtles have been reported to serve their sentence as living chains for over a year. As was the fad in the 1950's in the United States, hatchling turtles are often marketed with decorated shells, typically with words or designs painted on the carapace. It is well established that such treatment will result in deformed shell growth.

Hormones, steroids and antibiotics:

For turtle farms where animals are raised and sold by weight, rapid growth is essential. For the mass produced, less expensive species, Chinese softshells, red-eared sliders, and Reeves turtles, hormones, steroids and other drugs are added to their food in order to promote rapid growth. The residues of these drugs are retained within marketed turtles. This practice is not limited to turtles, farm-raised fish, chickens and other food market animals likewise receive heavy doses of hormones either through feeding or injection. Due to heating of rearing ponds, high-density culture techniques, and stagnant conditions of the ponds, disease is rampant in farmed turtles. This is countered by the use of antibiotics.

These practices are well known and widely reported in the press; nevertheless the consumer has little choice in that most available and affordable meat products are saturated with hormones and antibiotics. As a result, in recent years large numbers of Chinese children are experiencing early puberty. There are also news reports of mammary hyperplasia -- the breast of men enlarge as a result of excess estrogen in turtle meat. The regular consumption of antibiotic residues will result in their accumulation in humans and result in lesions in various organs.

Conservation issues:

The IUCN lists red-eared sliders among the 100 most dangerous invasive species in the world, and since the 1970's the U.S. Food and Drug Administration has banned sales of pet turtles under four inches because of health risk to people. This ruling was based on health issues caused by the slider pet trade within the U.S. Several states in the U.S. have banned the sales and/or possession of red-eared sliders because they are regarded as injurious wildlife. Vietnam forbids their importation, as does the European Union (Lee 2010). The levels of establishment vary widely throughout China because of locations of farms and markets, and regional cultural differences. Many first, second and third order streams have been converted for agricultural use, and rivers dammed for hydroelectric power. This degradation is at the expense of native turtles and in many cases favors the exotic sliders. In that this species has been commercially prevalent in China for only about 20 years it is a reasonable assumption that introduced sliders will further saturate the country's aquatic systems over time.

The following issues represent our major concerns that will likely to be caused by red-eared slider introduction:

Options of sites to reintroduce native species in future will be limited by the established and growing populations of exotic sliders. As recently as 20 years ago feral sliders were all but absent from China.

The sliders compete with native species. Just 20 years ago Chinese stripe-necked turtles (*Mauremys sinensis*) were the most abundant species in Taiwan. Their numbers are in decline and now red-eared sliders are the common turtle of Taiwan. And this on an island where commercial collecting of native turtles was not a major issue.

The omnivorous sliders will prey on native aquatic invertebrates and vertebrates, some of which are already facing numerous problems and accordingly are already in decline.

The increased presence of feral red-eared sliders on mainland China will result in the continued hunting of turtles for markets. Thus, even when native species are no longer present in quantities to make hunting them worthwhile, people will still be checking aquatic habitats for turtles, and any relict populations of native species will remain under commercial pressure. Considering the higher retail value of native stocks it is unlikely that they will be spared due to the abundance of sliders.

Likewise the presence of large numbers of red-eared sliders will subsidize and thereby likely increase the number of native and feral predators, and most importantly nest predators, making it difficult for native turtles to reestablish populations.

Because of the deplorable conditions under which sliders and other farmed turtles are maintained spread of disease to wild stocks seems inevitable. Mass escape from turtle farms can occur during floods and other disasters, and individual pet turtles are continually being released.

RED-EARED SLIDERS COME TO CHINA (5/6)

The use of antibiotics in farmed turtles will lead to rapid evolution of bacteria creating resistant strains in both captive and, in turn, wild stocks.

The abundance of red-eared sliders and the increase in their production on turtle farms in China will lead to their export to other Asian countries that also have populations of rare and declining turtles. The turtles in these countries will also face competition from the feral sliders once they become established.

The ecological tolerance of *Trachemys* is such that they can survive in almost any situation and they can thrive in highly polluted waters and altered aquatic systems. This will make it almost impossible to eradicate them as individuals from polluted sources can easily re-colonize adjacent water bodies if restoration efforts are made.

Large turtle farms are constantly promoting the value of turtle nutrition in the media in order to enhance the marketing of their product. This increases the demand of not just farmed stocks, but for turtles taken from the wild as well. Recently the Association of Qinzhou Turtle Farms prepared a large pot of soup using 60 turtles in an advertisement ploy. Because the turtles used included rare and endangered species they pointed out they this single pot of soup was valued at CYN 180,000 (US \$ 27,272). While clearly outside the economic reach of the intended audience, this did stimulate the desire for turtle soup and resulted in an increased local demand for red-eared sliders and other inexpensive turtles.

Chinese newspapers and websites have numerous articles explaining the ecological devastation to aquatic systems resulting from the release and establishment of red-eared sliders. The articles explain the turtles are “dangerous,” “invasive species,” and “killer” animals polluting aquatic habitats and disrupting the country’s ecology. People are repeatedly warned not to release these turtles into the wild, but as in the U.S. the vast majority of the populace remains unaware of the issues, and refuse to believe that their little pet is capable of causing ecological havoc. If this not alarming enough Florida softshells and common snappers are now becoming popular in China’s pet trade and it seems inevitable that they too will eventually become established throughout the country. This will give any surviving indigenous turtles three highly adaptable species against which they will need to compete.

Discussion: Because of China’s diverse chelonian fauna, many being endemic species, the farming, mass production, and establishment of red-eared sliders in China presents a number of problems. While this same turtle has become established as feral populations throughout many areas of the world, the conservation issues are particularly troublesome in China. This is because of the combination of decline of native species, the heartiness and fecundity of the sliders, and the country’s cultural use of turtles perpetuating an economic force driving the mass production of the exotic sliders. China’s new path of capitalistic investment has led to the expansion of private turtle farms. At first turtle farming appears to be a strategy that would take the pressures off wild stocks. This seems intuitively true when common imported species such as red-eared sliders are farmed in mass, but this is not the case. Several recent publications have documented the continued drain turtle farms place on wild populations as the adult turtles reproductive output declines and the turtles are replaced with fresh stocks (Shi et al. 2007, 2008, Vinke and Vinke 2010). We suspect this is a direct result of poor nutrition. In the US most turtle farms are feeding their breeding stocks exclusively on inexpensive byproduct foods such as catfish heads or chicken entrails which eventually leads to reproductive failure as the breeding stocks are constantly being replaced with fresh wild caught turtles. This appears to be the case in China as well, as the farms interested in the more profitable stocks continue to devastate the few surviving native populations, while the inexpensive sliders help to perpetuate the market.

Chinese attitudes toward conservation vs. profit, combined with the country’s growing population negates any serious interest in attempted ecological sustainability. The growing number of turtle farms actually masked turtle conservation concerns as people assume the farming of mass numbers of red-eared sliders and other common nonnative turtles would help eliminate the demand placed on wild native stocks (Shi et al. 2007). It appears that it has only expanded the demand. The conservation issues created, and problems resulting from the inhumane treatment of turtles continues to grow due to a near lack of government regulations (Meng et al. 2000) and engrained cultural attitudes. Unlike in the United States where conservation and economic concerns occupy totally different strata of human concern, strata which have no interaction except when one annoyingly gets in the way of the other, in China the economic interest are the only driving force and conservation ethics are virtually nonexistent. Economic considerations are not likely to change even in the distant future, keep in mind China’s population is 1.3 billion. Both its population and economy continue to grow.

Its interesting that the United States bans certain chemicals, requires warning labels on various products, and attempts to prohibit the sale of hatchling red-eared sliders and other turtles produced on our turtle farms that are under four inches because of health concerns. Still they allow these same products to be exported by US firms to other countries. Based on the amount of federal aid money going to various nations we are obviously interested in the health and welfare of people throughout the world. Yet, this does not include concerns that interfere with US based business ventures such as southeastern US turtle farms. China has no regulations regarding invasive species and our slider exports continue.

RED-EARED SLIDERS COME TO CHINA (6/6)

The future of China's native freshwater turtles is at best bleak. The country's economic growth is frequently at the expense of natural environments. This combined with the expanding human population will continue to limit any hope of future reparation of indigenous turtles and other native wildlife. The addition of feral red-eared sliders to the country's aquatic habitats is but one more nail in the coffin for any opportunity to restore past fauna assemblages. If one were to plan a conspiracy against China's former diversity of native turtles they would be hard pressed to contrive something better than the serendipitous events that are currently occurring.

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