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B . E . D . I . M .

**Bureau for Exchange and Distribution of
Information on Minilivestock**

**Bureau pour l'Echange et la Distribution
de l'Information sur le Mini-Elevage**

**Semestrial Bulletin of Information
on Minilivestock**

**Bulletin Semestriel d'Information
sur le Mini-Elevage**

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NOUVELLES DE L'ASSOCIATION

Le Conseil d'administration du BEDIM s'est réuni le 28 avril 2005. Au cours de cette réunion, il a été acté que le Collègue Ferran Jori du CIRAD (Montpellier) serait chargé au sein du Conseil de la « production et de la pathologie des mammifères en mini-élevage ».

Etant donné que la nouvelle législation sur les ASBL et AISBL impose de modifier certains articles des statuts de l'association, un texte provisoire reprenant ces modifications a été analysé en séance et sera présenté lors d'une prochaine assemblée générale. Une de ces modifications concerne tout spécialement le changement du siège social de l'AISBL qui serait localisé à la Faculté de Gembloux.

L'avenir du Bulletin d'information semestriel de BEDIM a également été longuement discuté suite à la disparition de l'aide financière accordée par la FAO pour son édition, en raison de restrictions budgétaires. Compte tenu des disponibilités financières actuelles de l'Association, le Conseil d'Administration a décidé de poursuivre l'édition du Bulletin sous sa forme actuelle (version papier et envoi postal) pendant une durée d'un an, en attendant de trouver des solutions permettant à tous ceux qui reçoivent actuellement le BEDIM de bénéficier des informations qu'il contient d'une manière optimale.

Suite à une proposition du Collègue Ferran Jori, le Conseil a également décidé de réfléchir pour dynamiser les échanges entre les membres de BEDIM, notamment au travers de son site Internet.

NEWS OF THE ASSOCIATION

The BEDIM Board of Trustees met on April 28th, 2005. At this meeting, it was agreed that the Colleague Ferran Jori of CIRAD (Montpellier) would be in charge of the «production and pathology of mammals in minilivestock », within the Board.

Given that the new law on *ASBL* and *AISBL* imposes changes of certain articles of the Association statute, a new temporary text including these modifications was analyzed during the meeting and will be presented at the next general assembly. One of these modifications concerns especially the change of the social headquarters of the *AISBL* which would be located at the Faculty in Gembloux.

The future of the semestrial Information Bulletin of BEDIM was also long discussed of in respect to the cancellation of the FAO financial assistance for its editing, due to budget constraints. Considering the current financial reserves of the Association, the Board of Trustees decided to further the

production of the Bulletin in its current form (printed matter and postal distribution) for one year, while expecting to find solutions enabling all those actually receiving BEDIM to optimally benefit the information it delivers.

Further to a proposition from the Colleague Ferran Jori, the Board also decided to think of ways to strengthen the exchanges among BEDIM members, particularly through its website.

ACTUALITES

NAISSANCE D'UN CENTRE DE FORMATION EN MINI-ELEVAGE AU CAMEROUN

<p>Centre de formation de Messamendongo. Yaoundé S/C Paul NOUPA B.P: 5506 YAOUNDE CAMEROUN Tel: + 237.964.16.46 ou + 237 987.31.72</p>

Cette association, dénommée « **CENTRE D'APPUI A LA PROMOTION DE L'ELEVAGE DES ESPECES NON CONVENTIONNELLES** (en abrégé **CAPENC**) » dont le siège est en Banlieue de Yaoundé au village **MESSAMENDONGO** vise les objectifs suivants :

1. Contribuer à la meilleure connaissance et à la vulgarisation des espèces non conventionnelles;
2. Contribuer à l'amélioration des conditions d'existence des populations et au développement durable;
3. Promouvoir les élevages intensifs et extensifs dans le cadre de la sécurité alimentaire et de la lutte contre la pauvreté;
4. Contribuer à la gestion durable des ressources de la biodiversité.

Le **CAPENC** qui a ouvert ses portes à partir de septembre 2005 par l'appui à la formation à l'élevage d'Aulacodes, vise dans cette filière à :

- dispenser la formation aux paysans, aux désœuvrés sociaux, aux enfants et autres adolescents en âge majeur abandonnés dans la rue, aux groupes d'initiatives communes de jeunes et de femmes,...;
- multiplier et rendre disponibles les géniteurs;
- Installer et encadrer les aulacodiculteurs formés et les regrouper autour de leurs intérêts communs pour rendre leurs productions concurrentielles sur le marché;
- créer et animer le réseau d'aulacodiculteurs et valoriser tous les intérêts portés sur l'élevage de cette espèce.

- contribuer à la lutte contre la destruction des ressources naturelles et le braconnage par les populations;
- améliorer les conditions de vie des aulacodiculteurs;
- contribuer à l'amélioration des conditions nutritionnelles des populations par l'apport des protéines animales « Bio ».

Contact :

Dans l'attente d'une adresse, le CAPENC répond par le contact de son secrétaire général :

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* * *

PRÉSENTATION DU MANUEL D'ÉLEVAGE DU GUATÍN
(*Myoprocta pratti* Wagler, 1831)

La faune sauvage d'Amazonie a traditionnellement contribué de manière importante au régime alimentaire des communautés indigène, métisses, paysannes, etc. sans que l'exploitation durable des ressources n'ait menacé les populations locales des espèces consommées.

En basse Amazonie (200 à 400 m), des techniques de capture de petits rongeurs comme la « guatuza » (*Dasyprocta punctata*), la « guanta » (*Agouti paca*) et le « guatín » (*Myoprocta pratti*) ont été mises en place et perfectionnées. De la même manière, la faune sauvage a été élevée au moyen de modèles familiaux d'élevage d'animaux, en établissant de petits enclos pour sa reproduction et sa consommation ultérieure. Les communautés indigènes d'Amazonie consomment traditionnellement la viande de guatín.

En haute Amazonie (600 à 1000 m d'altitude), la situation est toute différente en raison de l'implantation de modèles étrangers à la réalité locale. Ainsi, la Loi de Réforme agraire et Colonisation a stimulé l'exploitation des ressources naturelles sans politique de conservation. La conséquence de ceci est que dans la majeure partie de la zone d'altitude une part importante de la biodiversité a été perdue, la forêt étant remplacée par des monocultures.

Dans ce contexte, les communautés locales ont perdu une source importante de protéines animales. Suite à cela, elles ont commencé à dépendre des marchés urbains et ce phénomène a contribué à leur appauvrissement. Il est donc d'une importance primordiale, se basant sur une connaissance élémentaire des espèces animales comestibles, de démarrer des modèles d'élevage et de conservation comme une alternative alimentaire pour la population, aisément mise en œuvre par cette dernière.

Le guatín (*Myoprocta pratti*) est une ressource potentielle grâce à sa fréquence de reproduction élevée et la facilité avec laquelle on installe des éleveurs. En pratique, une famille peut démarrer un élevage avec des investissements relativement faibles qu'elle pourra récupérer dès l'année suivante. Le coût de la viande de guatín est estimé entre 1,5 et 2 USD la livre. On doit souligner en outre le rôle que joue cette espèce dans son environnement, étant un important disperseur de semences.

Un élevage peut être démarré sur une surface de 4 m², avec des enclos de palmier (*Bactris* spp.), mixtes (palmier et treillis métalliques) ou adaptés à la réalité concrète de l'éleveur. Généralement les ressources pour construire les enclos se trouvent dans l'environnement direct de la communauté et ne représentent pas un coût supplémentaire d'investissement.

Les nids sont simples. On peut utiliser des troncs creux, des caisses en bois ou des tubes PVC même si ces derniers sont moins recommandés. On peut commencer avec un mâle et trois femelles. Au fur et à mesure que l'expérience s'acquiert, le cheptel pourra augmenter et le système l'élevage se diversifier. On peut également mettre en place des systèmes similaires pour élever des « guatuzas », « quantas » et autres espèces proches du « guatín ».

Cet article est le résumé du Manuel d'Élevage du Guatín dans la Province de Pastaza, en Equateur dans la région de haute Amazonie, développé par le Centro Tecnológico de Recursos Amazónicos –Centro Fátima- de l'Organización de Pueblos Indígenas de Pastaza OPIP (Pastaza Runaguna Tandanakuy), en tant que contribution pour toute les personnes, familles et communautés qui envisagent d'implanter des modèles de valorisation et de conservation de la faune sauvage comme une proposition technologique alternative, respectueuse de la conservation de la pachamama (mère terre).

Andrés Tapia

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PIGTROP : UNE PAGE WEB CONSACRÉE À L'ÉLEVAGE DE PORCS TROPICAUX

Le Dr. Vincent Porphyre, du CIRAD EMVT est en charge de la création et de l'animation de cette page Web consacrée exclusivement à la diffusion d'information sur l'élevage de porcs domestiques et sauvages dans des pays tropicaux. Elle existe dans des versions française et anglaise et contient une information abondante sur la zootechnie, la pathologie, les événements, les curiosités et les publications en rapport avec la production de cochons de toute race et espèce dans différents lieux d'Asie, d'Afrique et d'Amérique latine. La page se veut être une plate-forme de communication et d'information orientée prioritairement pour les acteurs de ce secteur dans des pays tropicaux, mais aussi pour les personnes intéressées par la production porcine

tropicale en général. Pour ceux que cela intéresse, vous pouvez également envoyer vos contributions à l'adresse : <http://pigtrop.cirad.fr>

PRESENTATION OF THE GUATIN FARMING MANUAL
(*Myoprocta pratti* Wagler, 1831)

Amazon wildlife has contributed traditionally in a significant way to the diet of the local, mixed-race, rural, etc. communities without the lasting exploitation of the resources causing the local populations of the species consumed to be put in jeopardy.

In low-lying Amazon (200 to 400 m), techniques used to capture small rodents such as the "Guatuza" (*Dasyproctor punctata*), the "Guanta" (Agonti Paca) and the "Guatin" (*Myoproctor pratti*) have been set up and improved. In the same way, the wildlife has been reared by means of the family livestock farming models, in setting up small pens for its reproduction and for a later consumption. Local Amazon communities traditionally eat the Guatin meat.

In upper Amazon (600 to 1,000 meters high), the situation is quite different due to the fact that foreign models have been used in the local reality. So, the law on land reform and colonization has stimulated the exploitation of natural resources without any policy for conservation. The consequence of this is that in the major part of the highlands a significant part of the biodiversity has been lost as the forest has been replaced with monocultures.

In this situation, local communities have lost an important source of animal protein. Because of this, they became dependent of urban markets and this phenomenon contributed to their impoverishment. Consequently, it seems importantly vital, based on elementary knowledge of edible animal species, to start conservation for the population which the latter easily implement.

The Guatin (*Myoprocta pratti*) is a potential source because of its high frequency in reproduction and the fact that breeders are set up in business with ease. In fact, a household can start livestock farming with relatively not very important investments which it can recover from the following year. The Guatin meat is valued between 1.5 and US \$ 2 or pound. It is also worth mentioning the part played by the species in the environment, being an important scatter of seeds.

Livestock farming can start on a 4 square-meter area, which pens made of palm tree (*Bactris* spp.), mixed (palm tree and wire grille) or appropriate for the breeder. Generally, resources that can be used to build pens are found in the immediate environment of the community and cannot necessarily be part of additional investment expends.

Nests are easily made. Hollow trunks can be used, wooden boxes or PVC pipes, even though the latter are not really advised. One can start livestock

farming with only male and three females. As he/she gains experience, the livestock will increase and the farming system will vary. Similar farming systems can also be set up for the “Guatuzas”, “Guantas”, as well as other species close to the “Guatin”.

This article is the summary of the Guatin Farming Manual in the province of Pastanza, in Equator in upper Amazon region, developed by the Centro Tecnológico de Recursos Amazonicos – Centro Fatima – de l’Organizacion de Pnebls Indigenas de Pastaza OPIP (Pastaza Runaguna Tondanakuy), as a contribution for any person, family, family or household, and community who/which is planning to introduce models of wildlife conservation and promotion as an alternative technological proposal showing respect for the conservation proposal showing respect for the conservation of the pachamama (motherland).

André Tapia

**Centro Technolgico de Recursos Amazonicos – Centro Fatimade la
Organizacion de Pnebls Indigenas de Pastaza OPIP
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PIGTROP: A WEB PAGE DEVOTED TO TROPICAL PIG FARMING

Dr Vincent Porphyre, from CIRAD EMVT, is responsible for the creation and organization of this Web page exclusively devoted to the broadcasting of the information on the livestock farming of the domestic and wild pigs in tropical countries. It exists in French and English versions and is informative as for zootechny, pathology, events, strange objects and publications in relation to the production of pigs of all breed and species in different parts of Asia, Africa, and Latin America. The page is meant to be a platform of communication and information directed first and foremost to agents working in this domain in tropical countries but also to people interested in tropical pig breeding in general. Those who are interested can also send their contribution at the address: <http://pitrop.cirad.fr>

BOOK PUBLICATION

Ecological Implications of the Use of Minilivestock (Insects, Rodents, Frogs and Snails)

Maurizio G. Paoletti (ed.): Dipartimento di Biologia Università di Padova, Padova, Italy

ISBN 1-57808-339-7; August 2004; c. 550 pages + 16 plates in color; US\$ 118.00

About the book • •

Although there are more than 15 million species of plants, animals and microbes on earth, more than 90% of the world food supply comes from just 15 crop species and 8 livestock species. One way to augment the human food supply is to increase the diversity of plant and animal species used as food.

This book provides stimulating and timely suggestions about expanding the world food supply to include a variety of minilivestock. It suggests a wide variety of small animals as nutritious food. These animals include arthropods (insects, earthworms, snails, frogs), and various rodents. The major advantage of minilivestock is that they do not have to be fed on grains thus saving many crop species for human consumption.

The book suggests technologies for harvesting these small livestock.

Contents • •

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- The Minilivestock Environment, Education, Research and Economics: *Jacques E. Hardouin*
- The Potential of Rodents for Minilivestock in Africa: *Ferran Jori* et al.
- Rodent Farming in the Amazon: Experiences with Amerindians in Venezuela: *Guido Govoni* et al.
- Frogs as Food: *Gianluigi Negroni*
- Snails Collecting and Small Scale Production in Africa and Europe: *Leslie Jhon Elmslie*
- An Overview of the Role of Edible Insects in Preserving Biodiversity: *Gene R. Defoliart*
- Insects: Food for Human Evolution: *Mila Tommaseo-Ponzetta*
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- Human Consumption of Lepidoptera, Termites, Orthoptera and Ants in Africa: *François Malaisse*

- Insects Eaten in Africa (Coleoptera, Hymenoptera, Diptera, Heteroptera, Homoptera):
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MON COMPAGNON : LE COBAYE *CAVIA PORCELLUS L.*, EXPÉRIENCES PERSONNELLES AU KIVU, R. D. CONGO (suite)

Thierry Kalimira METRE

Le cobaye : une solution pendant la guerre

Sous ce paragraphe, je tiens à parcourir et à épinglez différents rôles joués par le cobaye pendant les dernières guerres qui ont frappé l'Est de la R. D. Congo et qui ont fait beaucoup de morts dans les couches les plus vulnérables (les femmes et les enfants).

Comme les gens ne pouvaient plus vaquer à leurs occupations quotidiennes et qu'ils étaient traumatisés par les coups de fusils, la famine s'installait progressivement. Elle se généralisait dans tous les coins. Les bandes armées occupaient aussi rapidement que possible les mêmes territoires. Elles pillaient systématiquement et violaient les femmes et les filles sans distinction d'âge.

Le cobaye a joué un rôle capital au cours de cette crise. Il allait même jusqu'à sauver la vie de certains habitants. Chaque famille possédait au moins une dizaine de cobayes. Vu que les chefs de la rébellion n'étaient pas en mesure de supporter le poids de leurs troupes, ces dernières devaient rançonner les pauvres paysans, eux-mêmes sans revenus.

Par semaine, chaque famille devait contribuer à raison de 100 Francs Congolais – FC (plus ou moins 400 FC est égal à 1 Euro), pour nourrir les troupes. Ce n'était pas aussi facile qu'on pourrait le croire. Seul un cobaye adulte pouvait couvrir deux semaines parce qu'il coûte 200 FC. Aussi, lorsque les soldats pénétraient dans une maison pour piller, ils s'intéressaient d'abord au cheptel cobaye qu'ils chassaient dans la maison.

Ils en capturaient un bon nombre et les jetaient dans des sacs à linge qu'ils emportaient. Cela constituait leur ration. Il a été cependant remarqué qu'il n'est pas facile de détruire tout d'un coup le cheptel cobaye. Il y avait toujours des rescapés. D'autre part, au cours des affrontements, les populations devaient circuler d'un milieu à un autre en se trouvant dans l'impossibilité de se déplacer avec les vaches, les chèvres, les porcs, etc., mais jamais sans quelques cobayes. Le cobaye était devenu un véritable compagnon des déplacés internes. Au marché, femmes et enfants vendaient les cobayes, parce qu'ils devaient en revanche acheter de la farine de manioc/maïs, des patates douces, du sel de cuisine, du savon et beaucoup d'autres produits de première nécessité.

Je ne peux pas clore ce paragraphe sans me souvenir du rôle inoubliable joué par le cobaye dans la scolarisation des enfants avec la pénible prise en charge des enseignants par les parents au Congo en général. En effet, les salaires des fonctionnaires ne se payent plus et, je n'ai jamais vu un agent de l'Etat percevoir son salaire. Moi-même j'étais professeur et c'était la triste réalité de la prise en charge des enseignants. Les parents ont le profond souci de scolariser leurs enfants et pour faire face à ce problème, ils vendent quelques têtes de cobayes. Il existe une école dans mon village où le comité des parents proposait aux enseignants le paiement de 2 cobayes par mois et par élève, avec une certaine réduction pour les parents qui avaient plus de trois enfants

dans cette école. En août, on observe un grand nombre de cobayes sur tous les marchés parce que la rentrée scolaire a lieu en septembre et qu'il faut trouver les fournitures scolaires avant la rentrée. Ainsi, le cobaye a résolu plusieurs problèmes d'ordre alimentaire, éducationnel (scolaire), sécuritaire et socio-économique.

Perspectives, orientations et conclusion

Il s'avère indispensable que les chercheurs, enseignants, étudiants et acteurs de développement s'appesantissent sur la caviculture. Ils devront mettre au point une stratégie pour endiguer l'ignorance qui persiste dans certains coins en rapport avec la consommation de la viande du cobaye. Plusieurs organismes tant nationaux qu'internationaux se contentent de distribuer des vivres et des produits non alimentaires aux malnutris. Ces bénéficiaires rechutent à la clôture du programme. Je pense qu'il serait plutôt important d'apprendre à ces couches les plus vulnérables et victimes de guerres comment se prendre en charge.

Des enquêtes devront être menées dans nos milieux ruraux pour évaluer le système d'élevage du cobaye, les contraintes et les difficultés auxquelles il se heurte afin de pouvoir juguler le goulot d'étranglement qui handicape sa promotion.

Des grands thèmes de recherche scientifique pourront être focalisés dans cette optique pour que cet animal soit présenté comme intrant majeur de la sécurité alimentaire.

Le moment n'est-il pas opportun pour implanter des grands élevages commerciaux dans nos milieux en vue de valoriser les performances de certaines souches ? Par exemple, dans un coin de l'Est de la R. D. Congo (à Burhinyi à 75 km de Bukavu), j'ai été surpris de rencontrer des cobayes d'au moins 3 kg chacun et qui donnaient 6 à 8 petits par portée. Le propriétaire, un vieux d'environ 90 ans, les considérait comme ses vraies vaches !

Enfin, que les personnes physiques ou morales de bonne volonté et que la question intéresse nous prêtent main-forte pour réaliser les mises au point nécessaires et organiser des centres de démonstration et de multiplication pour fournir des reproducteurs à ceux qui le souhaitent.

Remerciements

Je tiens à remercier de tout cœur le Prof. Honoraire Dr Ir J. Hardouin, Président du B.E.D.I.M. pour m'avoir manifesté toute sa disponibilité et ses encouragements sur la voie de la recherche caviicole.

Mes remerciements s'adressent d'avance aux partenaires potentiels que susciterait une telle démarche orientée vers le développement et la prise en charge des populations vulnérables grâce à la caviculture.

Enfin, toute ma gratitude à mon épouse Brigitte Mushamalirwa pour ses encouragements pendant la rédaction de ce document.

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MY COMPANION: THE GUINEA PIG *CAVIA PORCELLUS L.*, PERSONAL EXPERIENCES IN KIVU, R.D. CONGO

Thierry Kalimira METRE

Summary

The author explains the situation as it was in the field and remote villages vis-à-vis to the Guinea pig : reluctance, taboo, etc. But he became cavia fan as early as 4 years old and built progressively up his experience, often in spite of opposite opinions of his family and village neighbours. As adolescent, he got the nickname of « Mr Caviaman ». At the same time, men started eating cavia meat though ashamed of that. Progressively women initiated cavia breeding and sale.

When at the university, cavia breeding represented for him his income source. During the recent Civil War in East of R. D. Congo, many villages were attacked, ransomed and pillaged. Guinea pigs were looked after by the pillages, but were also easy to be transported in the bush by people fleeing away, which was not the case for cattle, goats or pigs. Today, guinea pigs sale gives the opportunity to pay school teachers.

The author suggests extension programmes not only for cavia breeding but also in the field of human nutrition and taboo forsake. Applied research is also required.

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NOVEDADES DE LA ASOCIACIÓN

El Consejo de administración de BEDIM se reunió el 28 de abril de 2005. En el transcurso de la reunión, se tomo acta de que nuestro colega el Dr. Ferran Jori del Departamento de Medicina Veterinaria y Producción Animal del CIRAD (Montpellier) seria el investigador encargado del tema « producción y patología des mamíferos en mini-cría.

La legislación belga sobre asociaciones internacionales nos impone la modificación de algunos artículos referentes a nuestro estatus de asociación. Un texto provisional sobre estas modificaciones será presentado en la próxima Asamblea General. Una de estas modificaciones corresponde al cambio de sede de nuestra asociación que se situara en la Facultad de Ciencias Agronómicas de Gembloux en Bélgica.

El futuro de nuestro Boletín de información semestral de BEDIM fue de igual manera ampliamente discutido debido a la desaparición del apoyo financiera de la FAO., por motivo de restricciones presupuestarias. En la situación financiera actual de nuestra asociación, el Consejo de Administración decidió continuar la edición del boletín en su formato actual (formato papel y envío por correo) durante un año suplementario, a la espera de encontrar soluciones que permitan a los lectores de BEDIM recibir las informaciones del boletín de la mejor forma posible.

A propuesta de nuestro colega el Dr. Ferran JORI, el consejo de administración también se se esta planteando sobre la posibilidad de dinamizar los intercambios de información y contactos entre los miembros de BEDIM, en particular a través de su portal en Internet.

NOTICIAS - NOTICIAS- NOTICIAS- NOTICIAS- NOTICIAS- NOTICIAS- NOTICIAS

NUEVO LIBRO SOBRE MINICRIA

Ecological Implications of Minilivestock (Role of Rodents, Frogs, Snails, and Insects for Sustainable Development)

A pesar de que existen mas de 15 millones de especies de plantas, animales y microorganismos en planeta tierra, mas del 90% del aporte alimentario mundial procede de 15 especies de cultivos agrícolas y 8 especies animales. Una posible forma de aumentar el aporte nutricional seria la de incrementar la diversidad de plantas y animales potencialmente explotables como alimento. Este libro aporta sugerencias estimulantes y actualizadas sobre la expansión del aporte alimentario del planeta incluyendo una variedad de especies de minicria: invertebrados (insectos, lombrices, caracoles), anfibios y varias especies de roedores. Esta obra sugiere tecnologías para explotar estas nuevas especies productoras de proteínas.

Ecological Implications of Minilivestock (Role of Rodents, Frogs, Snails, and Insects for Sustainable Development) es el nuevo libro del Profesor Maurizio G. Paoletti, investigador del Departamento de Biología, Universidad de Padua, Italia y miembro del Consejo de Administración de BEDIM.

Se trata de una obra de 600 páginas que incluye 29 capítulos dedicados a diferentes aspectos de la minicria y su utilización en varios lugares del mundo, en la cual han contribuido mas de 30 científicos de diferentes puntos del planeta.

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REVISTA ELECTRONICA DE FAUNA SILVESTRE PARA LATINOAMERICA

En el marco del VI Congreso Internacional de Manejo de Fauna Silvestre en la Amazonía y Latinoamérica celebrado en Iquitos en Septiembre de 2004, se acordó constituir en una revista electrónica para publicar las memorias del VI Congreso de Fauna y otros trabajos relacionados con el manejo de fauna silvestre en la Amazonía y Latinoamérica. En ese sentido, fue constituida la revista electrónica denominada: Manejo de Fauna Silvestre en Latinoamérica. La Revista inicialmente publicaría las memorias del Sexto Congreso, y posteriormente publicaría artículos sometidos y también las futuras memorias de los Congresos.

Cualquier información relativa a esta revista, puede ser solicitada a Manuel Antunez, Editor Asistente, Universidad Nacional de la Amazonia Peruana, Iquitos. E mail: revistafauna@rcp.net.pe

PROXIMO CONGRESO DE MANEJO DE FAUNA SILVESTRE EN AMERICA LATINA

El VII Congreso Internacional sobre manejo de Fauna Silvestre en Amazonia y América Latina se celebrara el próximo año 2006 entre el 3 y el 7 de Septiembre en Ilhéus, Estado de Bahía (Brasil). El anfitrión de esta edición será Universidad Estadual de Santa Cruz de Ilhéus (UESC), particularmente vinculada a la desde hace años a la producción de animales silvestres neotropicales. Es previsible que en esta edición, se dedique todavía mayor atención a la cría de animales silvestres.

Para mayor información: viicongresso@uesc.br

REVISTA SOBRE PECARIES

Editores:

Edsel Amorim Moraes Junior: edsel.bhz@terra.com.br

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Este boletín tiene la vocación de ser una herramienta de comunicación entre personas dedicadas a la investigación y el conocimiento de Tayasuidos. La información colectada constituirá la próxima newsletter de peccaries. Esto no es una revista científica pero nos va a ayudar a compartir información,

enterarnos de lo que se esta haciendo, intercambiar literatura, compartir nuestras experiencias y nuestros problemas, ayudarnos unos a otros, unir esfuerzos, etc.

La idea es tener información actualizada de todos los estudios que se están realizando o por se están por empezar sobre Tayasuidos. Pueden ser estudios específicos de pecaríes o que formen parte de otros proyectos.

Los editores solicitan entre 1 y 2 paginas por proyecto, que pueden ser enviadas a Mariana (en español) o a Edsel (si es portugués).

REUNION FINAL DEL PROYECTO PECARI “DESARROLLO DE SISTEMAS PARA LA PRODUCCION SOSTENIBLE DEL PECARI DE COLLAR EN AMERICA LATINA.

Dr. Ferran JORI, Departamento de Medicina Veterinaria y Producción Animal Tropical, CIRAD, Montpellier (Francia)

La primera semana de Agosto de 2006 tuvo lugar en la Pousada Ararauna del Pantanal de Mato Grosso do Sul, (Brazil) la reunión final dedicada a la evaluación y análisis final de este proyecto de investigación, financiado por la Comisión Europea por un valor de 650.000 € y dedicado al estudio del pécarí de collar (*Tayassu tajacu*) esta especie con vistas al desarrollo de su cría y explotación en Latinoamérica. En dicho proyecto, han colaborado 3 instituciones brasileñas (Universidad Federal do Para, Universidad Estadual de Santa Cruz de Ilhéus y EMBRAPA Pantanal), 1 peruana (IVITA Iquitos), una británica (DICE), una española (Universidad Autónoma de Barcelona) y dos francesas (Museo de Historia Natural de Paris y CIRAD). Las conclusiones están siendo redactadas y validadas por todos los participantes y serán publicadas en la próxima edición del boletín de BEDIM.

* * *

SURVEY OF THE LITERATURE

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AGOUTI

Govoni G. & Fielding D. - Paca (*Agouti paca*) and Agouti (*Dasyprocta* spp.) - minilivestock production in the Amazonas State of Venezuela: 1. Biology.

Source: Tropicultura 2001, 19 (2): 56-60

Language: English

Address: Department of Biology, Padova University, Padova, Italy.

Abstract: In response to increasing human population pressure in the Amazonas State of Venezuela greater attention is being given to the "minilivestock" production of the wild rodents paca (*Agouti paca*) and agouti (*Dasyprocta* spp.) as sources of food and income and to reduce the risk of their possible extinction. In preparation for the increased farming of these rodents, this paper reviews published material on their characteristics, distribution, habitat, conservation status, behaviour, reproductive parameters and nutrition. It is concluded that the paca and agouti have characteristics that justify greater investment in their domestication and farmed production, although and behavioural issues and reproductive limits need further research.

BDB ref. : BEDIM 509

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GRASSCUTTERS

Addo P., Dodoo A., Adjei S. & Awumbila* B. - Optimal duration of male-female exposure to optimize conception in the grasscutter (*Thryonomys swinderianus*)

Source: Livestock Research for Rural Development 2003, 15(1):

Language: English

Address: Noguchi Memorial Institute for Medical Research, Box LG581, University of Ghana, Legon. E-mail: paddo@noguchi.mimcom.net; phyllisaddo@hotmail.com; alfredkofi@hotmail.com. *Animal

Science Department, Box 25, University of Ghana, Legon. E-mail: awumbila@ug.edu.gh

Abstract: The optimal duration of male-female exposure needed to achieve pregnancy in grasscutters was investigated. Sexually mature male and female grasscutters were paired until mating had occurred. The outcome of the pairing namely: the female's acceptance to mate (sexual receptivity), conceive and deliver were investigated by separating the female from the male immediately after mating and subsequently monitoring the female until parturition.

The females accepted mating after spending between 18 to 192 hours with the male. The first three days of a two-week male-female exposure resulted in 80% (n = 30) sexual receptivity, 76.3% (n = 29) conception and 71.4% (n = 28) parturition compared to the remaining eleven days, which resulted in 16.7% (n = 30) receptivity, 17.2% (n = 29) conception and 17.9% (n = 28) parturition. The difference in duration of exposure for the first three days of pairing and the rest of the exposure period (eleven days) was significant. Duration of pairing and pairing outcome for the two periods were cross-tabulated and noted to be negatively associated for sexual receptivity, conception and parturition, suggesting that the optimal duration of pairing grasscutters to achieve pregnancy is three days.

It is concluded that the common practice of permanently pairing the male and female to achieve pregnancy, which sometimes results in cannibalism of the neonates by the male, is avoidable and the overly long duration of exposure is not necessary.

BDB ref. : BEDIM 367

Adu E.K. - Patterns of parturition and mortality in weaned greater cane rats (*Thryonomys swinderianus*, Temminck).

Source: Tropical Animal Health and Production 2003, 35(5): 425-431

Language: English

Address: Animal Research Institute, CSIR, PO Box AH 20, Achimota, Ghana. E-mail: nhyirapapa@yahoo.com

Abstract: The patterns of parturition and mortality were studied in a colony of weaned captive greater cane rats, *Thryonomys swinderianus*, Temminck, from January to December 2000 at the Grasscutter Domestication Centre, Pokoase Research Station, Animal Research Institute, Ghana. The most important finding from the study was that it is practical to wean greater cane rats at 4 weeks of age with proper post-weaning management. Mortality ranged between 0 and 3.9% with an average of 1.4% for animals weaned at 4 weeks. Among the factors contributing to mortality in the weaned greater cane rats may be the number of animals per Unit space. The mortality in this study was a marked improvement

compared to that of 11% reported elsewhere for animals weaned at 6 weeks. The animals were, however, smaller at weaning compared to those in reports from elsewhere, probably owing to poor lactation by the mothers. Peak parturition occurred in October with captive breeding having no influence on the parturition pattern.

BDB ref. : BEDIM 364

Addo P. - Detection of mating, pregnancy and imminent parturition in the grasscutter (*Thryonomys swinderianus*)

Source: Livestock Research for Rural Development 2002, 14(4)

Language: English

Address: Noguchi Memorial Institute for Medical Research, Box LG581, University of Ghana, Legon, Ghana. E-mail: paddo@noguchi.mimcom.net

Abstract: This study was undertaken to establish methods for detecting mating, pregnancy and imminent parturition in the grasscutter to aid in the captive breeding of the species. Nineteen female grasscutters were hand-mated and subsequently individually caged to determine the outcome of male-female contact (i.e. mating, conception and parturition) and the cardinal signs that accompany them. The signs of mating were detected by monitoring changes in the perineum of the female before and after mating; the signs of pregnancy by monitoring changes in the perineum of the female, changes in weight gained post-mating and presence of foetuses in utero by abdominal palpation; while the signs of imminent parturition were detected by monitoring expectant mothers with distended abdomens for change in feeding/drinking habits, behaviour and posture.

The findings of the study suggest that mating in grasscutters is always manifested by vulval congestion, which is sometimes accompanied by vulval oedema and protrusion of the vaginal wall. Pregnancy is manifested by a definite change in body weight four weeks after mating and by intermittent vaginal bleeding and palpation of foetuses *in utero* five weeks after mating. Parturition is imminent within three days when the expectant mother stands on only its hind legs, and it is a day away when the change in posture is combined with frequent looks at the lower abdomen. The grasscutters give birth to precocious young after 148-158 days of gestation. Mating, pregnancy and imminent parturition are therefore detectable in the grasscutter by visible cardinal signs.

BDB ref. : BEDIM 368

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GUINEA PIGS

Cicogna M., Castrovilli C. & Rigoni M. – Guinea pig (*Cavia porcellus* L.) raising for meat production: researches on different husbandry aspects

Source: Proceedings of the Seminar “Invertebrates” (minilivestock) Farming, Philippines, November 1992, pp 12- 14

Language: English

Address: Istituto di Zootecnia Generale della Facolta di Agraria, University Degli Studi, Milano, Italie.

Abstract: From prehistoric times the guinea pig (*Cavia porcellus* L.) was raised for food on the central highlands of the Andes and is now reared for meat production in different countries of Latin America, Africa and Asia (National Research Council, 1991). These rodents are considered a very promising “minilivestock” species because they require little capital and labour, provide an inexpensive readily available, palatable meat and are suited to be fed on Kitchen scraps and to be raised even by landless households in semi-urban farming systems.

The biology of guinea pig is well-known, but main emphasis of most of the international literature on this rodent is on its use as a substrate in research or as an experimental animal model (Magner and Manning, 1976). Research work on raising, breeding, feeding and management techniques on guinea pig as a farm animal for meat production was mainly carried out in Latin America (especially in Peru) and have recently reviewed in a FAO publication (Quijandria, 1988) and by Hardouin *et al.* (1991).

According to the literature and to our investigations, guinea pigs are most commonly raised in small family units, in colonies of small size, housed promiscuously on the floor of the family house and fed on kitchen wastes and on grasses harvested from marginal wastelands or, less frequently, from cultivated fodder crops. In these conditions the technological and capital inputs are minimal, but mating occurs randomly with close inbreeding and negative selection for weight per age is often practiced as subjects with higher growth rates are slaughtered earlier whereas lighter subjects have more opportunities to breed.

For a better understanding of the potential performance of this species and of the most suitable husbandry techniques, a coordinated research programme was set up in Cameroon (Institut de Recherches Zootechniques of Yaoundé) and in our Institute, within the framework of the wider research project on « Microlivestock as food and feed in semi-urban farming systems ». The three year research work, financed by E.E.C. within the STD-2 programme, started in 1990.

For this purpose an experimental colony was set up in Milan, in order to:

- compare reproductive and growing performances of guinea pigs under two different breeding systems (inbreeding vs. outbreeding) and two different mating rhythms (planned vs. uncontrolled) ;
- determine feed utilization ;
- study the trends of growth and carcass yields from 3 to 23 weeks of age, by means of a comparative slaughtering trial. A few details follow on the experimental protocols adopted.

BDB ref. : BEDIM 33

Manjeli Y., Tchoumboue J., Njwe R. M. & Tegua A. – Guinea-pig productivity under traditional management

Source : Tropical Animal Health and Production 1998, 30: 115-122

Language : English

Address : Department of Animal Science, Faculty of Agriculture, University of Dschang, PO Box 222 Dschang, Cameroon

Abstract : Results of a 12 month study of traditional guinea-pig production in the western high lands of Cameroon are reported. The mean age of guinea-pig (*Cavia porcellus* L.) at first parturition kidding in the interval and litter size at birth were 126.30 ± 10.40 d, 64.8 ± 1.70 d and 1.63 ± 0.26 kids respectively. The annual reproductive rate was 9.18 kids/breeding doe while the doe post-partum weight was 5.30 g. Mean body weights at birth presumed weaning (21 d) and 15 weeks of age were 78.36 ± 3.20 , 147.51 ± 8.10 and 418.88 ± 32 g respectively. Type of birth and sex had a significant effect on body weight at all ages. Birth weight dropped significantly from 83.88 ± 2.87 g for singles to 81.57 ± 3.40 g for twins, 74.25 ± 2.39 g for triplets and 73.35 ± 4.12 g for quadruplets. These differences were maintained to maturity (15 weeks). Males were generally heavier than females. Mortality rates were relatively high among kids 24 % at birth, 39 % at 3 weeks and 40 % at 15 weeks. Productivity indices were 0.827 kg of young weaned per doe per year, 1560 g of young weaned per kg of doe per year and 2.52 kg of young weaned per kg metabolic weight ($\text{kg}^{0.75}$) of female per year.

BDB ref. : BEDIM 47

***Tchoumboue¹ J., Niba A.T. & Kenfack² A. - Comparative studies on the influence of supplementation with two legumes (*Arachis glabrata* Benth and *Desmodium intortum*) on the reproductive and growth performance of guinea pigs (*Cavia porcellus* L.) [Etudes comparatives sur l'effet de la supplementation avec deux legumineuses (*Arachis glabrata* et *Desmodium intortum*) sur la performance de reproduction et de croissance des cobayes (*Cavia porcellus* L.)]**

Source: Bull. Anim. Health. Prod. Afr. (2001), 49, 74-83

Language: English

Address: ¹Department of Animal Production, ²Department of Animal Biology, Faculty of Agronomy and Agricultural Sciences, P O. Box 222 Dschang, Cameroon

Abstract: Forty eight adult guinea pigs (*Cavia porcellus*) comprising of 45 females and 3 males were used in a four-month study to compare the effect of supplementation with *Arachis glabrata* or *Desmodium intortum* of a basal diet containing *Trypsacum laxum* and rabbit feed on their reproductive and growth performance. Animals were divided into three equal groups (1 male and 15 females each) corresponding to the experimental diets namely the basal diet group (BDG), the Arachis supplemented group (ASG) and the Desmodium supplemented group (DSG). The results showed that the fertility rate was significantly higher ($P < 0.1$) for ASG (93.3%) and DSG (73.3%) than the BDG (40.0%). Birth weights and viability at weaning which were respectively 100.1g, 98.9g and 96.9g, and 100.0%, 84.7% and 50.0% followed the same trend. No significant difference was observed for the birth weights. Contrarily, viability at birth showed a significant variation ($P < 0.1$) between ASG and the other two groups. Mean values for the daily weight gain were higher in DSG (4.5 ± 1.6) than ASG (3.5 ± 1.0) and BDG (1.5 ± 1.2). Means for this parameter were significantly higher in ASG and DSG than in BDG. The mean weaning weights for ASG, DSG and BDG were 173.6 ± 4.9 , 194 ± 7.1 and 161.4 ± 4.9 g respectively. No significant differences ($P > 0.05$) were observed for the weaning weights. The results revealed that feeding of guinea pigs with additional vegetable improved reproductive and growth performances.

[Quarante-huit cobayes adultes (*Cavia porcellus*) composés de 45 femelles et de 3 mâles ont été utilisés dans une étude qui a duré quatre mois, afin de comparer l'effet de la supplémentation, avec *Arachis glabrata* ou *Desmodium intortum*, d'un aliment de base contenant *Trypsacum laxum* et de nourriture pour lapin, sur leur performance de reproduction et de croissance. Les animaux étaient répartis en trois groupes égaux (1 mâle et 15 femelles chacun), qui correspondaient aux aliments d'expérience suivants: le groupe "aliment de base" (GAB), le groupe supplémentation avec Arachis (GSA) et le groupe supplémentation avec Desmodium (GSD). Les résultats ont montré que le taux de fertilité était bien plus élevé ($P < 0,1$) pour GSA (93,3%) et GSD (73,3%) par rapport à GAB (40%). Les poids à la naissance et la viabilité au sevrage qui étaient respectivement de 100,1 g; 98.9 g et 96,9 g et 100%, 84,7% et 50% ont suivi la même tendance. Aucune différence significative n'a été constatée pour les poids à la naissance. En revanche, la viabilité à la naissance a révélé une variation importante ($P < 0,1$) entre GSA et les deux autres groupes. Les valeurs moyennes pour le gain pondéral quotidien étaient les plus élevées chez GSD ($4,5 \pm 1,8$ g) comparé à GSA (3.5 ± 1 g) et GAB (1.5 ± 1.2 g). Les valeurs pour ce paramètre étaient beaucoup plus élevées chez GSA et GSD que chez GAB. Les poids moyens au sevrage pour GSA, GSD et GAB étaient respectivement de $173,6 \pm 4,9$ g, $194 \pm 7,1$ g et $161,4 \pm 4,9$ g. Aucune différence significative ($P > 0,05$) n'a été trouvée pour les poids au sevrage. Les résultats ont révélé que

l'alimentation des cobayes avec un supplément de légumineuse a amélioré la performance de reproduction et de croissance.]

BDB ref. : BEDIM 370

Fransolet¹ M.C., Horlait¹ P. & Hardouin² J. – Elevage du cobaye *Cavia porcellus* en région équatoriale au Gabon

Source : Revue Elev. Méd. Vét. Pays Trop. 1994, 47(1) : 107-111

Language : French

Address : ¹Rue Houtain 1, 7863 Ghoy, Belgique. ²Institut de Médecine tropicale Prince Léopold, Nationalestraat 155, B-2000 Antwerpen, Belgique

Abstract : L'élevage du cobaye *Cavia porcellus* comme animal de boucherie a été étudié pendant deux ans et demi sous forme expérimentale au Gabon où il a été déjà élevé au niveau familial, quoique de façon peu répandue. Le cobaye est un animal prolifique : 3,4 jeunes en moyenne par portée, et bien que sa durée de gestation soit relativement longue (2 mois), il reste un animal intéressant par sa rusticité et son aptitude à consommer les déchets végétaux de l'alimentation humaine. Les animaux à l'engraisement atteignent 750 g de poids vifs en 6 mois avec un gain moyen quotidien de 4 g. Les rendements en carcasse sont de 47,9%. Peu d'affections graves ont été rencontrées, si ce n'est des cas des pneumonies mortelles. Le comportement est très pacifique. Seule la mise en présence de males pubères étrangers dans le même enclos pose parfois des problèmes d'agressivité. Cette première étude est encourageante car en raison des besoins, une telle source de protéines n'est pas à dédaigner du point de vue de familial d'appoint, ou même dans l'optique d'un élevage commercial.

BDB ref. : BEDIM 312

Dittmar K., Ribbeck R. & Dauschies A. - Presence and distribution of ectoparasites in guinea pigs (*Cavia* spp.) in Peru, South America [Vorkommen und Verbreitung von Ektoparasiten bei Meerschweinchen (*Cavia* spp.) in Peru, Südamerika]

Source: Berl. Münch. Tierärztl. Wschr. 2003, 116: 102-107

Language: German

Address: Institut für Parasitologie, Veterinärmedizinische Fakultät, Universität Leipzig, Germany

Abstract: Studies on the prevalence and distribution of ectoparasites in Peru were carried out during a period of 2½ years. The survey included 17421 domesticated guinea pigs (*Cavia aperea* f. *porcellus*) from 14 departments in all bioregions and altitude levels and 143 wild guinea pigs (*Cavia aperea*) from three areas (El Paramo, Junin and La Raya) in the Andes and the Cordillera. The guinea pig is an important source of food, especially for the rural population, the infestation with ectoparasites, such as fleas, lice or mites greatly

contributes to a decrease in production and low performance. Ectoparasites can be vectors for a variety of pathogens, which is particularly problematic due to the close association of this animal with humans. Twenty-one ectoparasite species have been recovered. New knowledge about host associations and distributions could be obtained. The results of the studies are presented under faunistic and ecological aspects.

BDB ref. : BEDIM 365

* * *

SNAILS

Griglione N. - Snail culture in Lanzo Valleys [Piedmont, Italy] [Elicicoltura nelle Valli di Lanzo [Piemonte].

Source: Annali-del l'Accademia-di-Agricoltura-di-Torino (Italy), 1998, 141: 255-259

Language: Italian

Address: Associazione Nazionale Elicicoltori, Cherasco, Cuneo (Italy)

Abstract: The author reviews the progress made in Italy in snail breeding, insisting on the many advantages of Italian system i.e. « in the open air ». Both *Helix aspersa* and *H. pomatia* are bred. Consumption in Italy increased from 1990 to 1998 from 6,700 to 16,500 tons; for the same period, national productions were 1,800 and 6,800 tons plus imports from 4,900 to 9,700 tons.

BDB ref. : BEDIM 366

Ebenso I. E. - Molluscicidal effects of *neem* (*Azadirachta indica*) extracts on edible tropical land snails

Source: Pest Management Science 2004, 60 (2): 178-182

Language: English

Address: Department of Animal Science, University of Uyo, PMB 1017, Uyo, Nigeria.

Abstract : The effects of 350, 500 and 700 mg kg⁻¹ of crude extracts of neem, *Azadirachta indica* A Juss, on edible tropical land snails *Archachatina marginata* and *Limicolaria aurora* (Jay) were determined and compared with the control using pawpaw, *Carica papaya* L. as bait. Responses were measured through normal feeding, cessation of food intake, cessation of crawling, mucus secretion, lack of response to mechanical stimuli (mortality) and decomposition. Results showed no effects on the controls or snails exposed to neem seed oil extract. Crude extract of bark, root and leaf of neem at 500 and 700 mg kg⁻¹ produced mortality after exposure for 48 h for *L. aurora* and 72 h for *A. marginata*.

BDB ref. : BEDIM 373

Akpavie S.O¹, Ikheloa² J.O., Odaibo³ A.B. & Imevbore⁴ E.A. - Pathobiological studies on the african giant snail: *Achatina achatina* and *Archachatina marginata*

Source: J. Trop. For. Resources 2000, 16 (1): 160-166

Language: English

Address: ¹Department of Veterinary Pathology. ²Department of Veterinary Microbiology and Parasitology. ³Department of Zoology, University of Ibadan, Ibadan Nigeria. ⁴Department of Animal Science, Federal University of Technology, Akure, Nigeria

Abstract: Bacteriological, parasitological and histopathological examinations of clinically normal African giant snails (*Achatina* and *Archachatina* species) showed high nematode (*Rhabditis axeii*) and mite (*Ornithonyssus* sp.) infections. Many potentially pathogenic bacteria isolated from the organs/tissues include; *Staphylococcus aureus*, *Klebsiella pneumoniae* subsp pneumoniae, *Clostridium perfringens*, *E. coli*, β -haemolytic *Streptococcus*, *Bacillus subtilis* and *Bacillus cereus*. These bacteria were consistently highly sensitive to tetracycline, chloramphenicol and cefuroxime but resistant to penicillin and cloxacillin. Histologically, the lungs of 3 snails showed chronic pneumonia and a nematode parasite while the liver showed no bacterial growth.

BDB ref. : BEDIM 372

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WILD PIGS

Mayor, P; Lopez-Gatius, F and Lopez- Bejar, M. : Integrating ultrasonography within the reproductive management of the collared peccary (*Tayassu tajacu*).

Language : English

Source : Theriogenology. 2005, 63(7): 1832-1843

Address : Department of Animal Health and Anatomy, Faculty of Veterinary, Autonomous University of Barcelona, E-08193 Bellaterra, Spain.

Abstract : Ultrasound imaging has been used to elucidate certain aspects of the reproductive biology of wild or endangered species. However, to our knowledge, this tool has not been used for reproductive monitoring of the collared peccary (*Tayassu tajacu*). In this study, real-time ultrasonography was used in 16 collared peccary females to diagnose early pregnancy status and predict gestational age. Based on the detection of an embryo, the earliest pregnancy diagnosis was made on Day 18 after mating, with the mean time needed for diagnosis being 22 days. Overall accuracies on Days 22, 26 and 28 were 56, 93, and 100%, respectively. On Days 26 and 28, all pregnancy and non-pregnancy diagnoses, respectively,

were correct. The fetal measurements that best correlated with gestational age were crown-rump-length (CRL) and the length and diameter of the thorax. CRL was considered the most practical measurement because, contrary to thoracic fetometry, it could be determined when the embryo was first detected. Our findings revealed real-time ultrasound scanning to be a very accurate method for early pregnancy diagnosis and prediction of gestational age in the collared peccary.

BDB ref. : 510

Nogueira-Filho, S.L.G. The effects of increasing levels of roughage on coefficients of nutrient digestibility in the collared peccary (*Tayassu tajacu*).

Language : English

Source : *Animal Feed Science and Technology*. 2005; 120(1/2): 151-157

Address : Departamento de Ciências Agrárias e Ambientais, Universidade Estadual de Santa Cruz, Rod. Ilheus-Itabuna, km 16, Ilheus, Bahia 45650-000, Brazil.

Abstract : The collared peccary (*Tayassu tajacu*) has a fore-stomach with active fermentation, which has given rise to considerable speculation on its ability to digest cellulose and related compounds. A digestion trial was conducted with 20 adult collared peccaries to determine the effects of increasing levels of roughage (250, 300, 350 and 400 g roughage/kg) on coefficient of total tract apparent digestibility (CTTAD). The collared peccary digested fibre compounds efficiently and CTTAD for NDF were comparable to those found in domestic ruminants. However, above 300 g roughage/kg, equivalent to 281 g NDF/kg, 142 g ADF/kg and 56 g lignin/kg, reduced the CTTAD significantly of the major dietary components, possibly due to an increase of the rate of digesta passage. This level is in agreement with previous data, which determined that roots, leaves and other vegetative parts of plants, high in fibrous contents, constitute around 300 g/kg of the peccary diets in the Amazon region. The high CTTAD of fibrous feeds might explain the easy adaptation of collared peccaries that live in a great variety of habitats and gives it a special place as an alternative species for animal production that can be sustained on inexpensive locally available foodstuffs.

BDB ref. : 511

Rossi, S.; Artois, M.; Pontier, D.; Cruciere, C.; Hars, J.; Barrat, J.; Pacholek, X.; Fromont, E.: Long-term monitoring of classical swine fever in wild boar (*Sus scrofa*) using serological data

Language : English

Source : *Veterinary research Print*. 2005; 36 (1) : 27-42

Address :

Abstract : In the European Community, epizootics of classical swine fever (CSF) in the wild boar (*Sus scrofa*) are compulsorily monitored because transmission may occur between wild boars and domestic

pigs, causing heavy economic losses to the pork industry. The estimation of incidence in populations of wild boars is generally based on viro-prevalence. However, viral isolation becomes rare when the incidence is low because the virus cannot be detected for more than a few weeks following infection. On the contrary, seroprevalence is detectable at low incidence levels, because antibodies can be detected for the lifetime of the infected animal. We thus attempted to analyse the long-term evolution of CSF incidence using serological data. The data came from France, where CSF had been monitored from 1992 to 2002, and where the virus has not been detected since 1997. We assumed that the overall seroprevalence would estimate the proportion of immune wild boars, that seroprevalence in juveniles would approximate incidence and that seroprevalence in different age classes would show the evolution of incidence in a given cohort. Spatial and temporal trends of incidence and seroprevalence were explored using logistic modelling and the spatial trend was analysed using polynomial regression. In 1992, incidence peaked in the northern area. After 1993, incidence decreased but remained the highest in the northern area. After 2000, no seropositive juvenile was observed, suggesting the extinction of the epizootic. Our results support the reliability of serological monitoring since it allowed a longer detection of viral transmission and provided more information on the spatio-temporal evolution of incidence than did viral isolation. We advocate that the highest persistence of infection in northeastern France is not independent from infection persistence in Reinland-Pfalz (Germany). Such persistence may be due to favourable local conditions and/or the social organisation of wild boars.

BDB ref. : 512

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EDIBLE RODENTS

De Oliveira, F.S; Machado, M.R.F. ; Canola, J.C: Handling of female pacas (*Agouti paca*, Linnaeus, 1766) for ultrasound pregnancy detection.

Language : English

Source : Brazilian Journal of Veterinary Research and Animal Science. 2003, 40(1/6): 69-72

Address : Departamento de Clinica e Cirurgia Veterinaria, Faculdade de Ciencias Agrarias e Veterinarias da UNESP, Via de Acesso Prof. Paulo Donato Castellane, s/n 14884-900, Jaboticabal, SP, Brazil

Abstract : Twelve adult female pacas were separated into 6 pen and were caught using a net made of polypropylene attached to a wire loop and then sent to a room for abdominal hair clipping. Afterwards, the animal was placed in an iron bar squeeze cage. Ultrasonography in

B-mode with a two-frequency sectorial electronic transducer of 5.0 and 7.5 MHz was performed. To reduce the stress caused by the procedure, the animals were tranquilized via oral administration of diazepam and midazolam maleate. Both drugs were found effective in the tranquilization of pacas before and during ultrasonographic examination, with midazolam maleate facilitating easier handling of the animal.

BDB ref. : 515

De Oliveira, F.S; Machado, M.R.F. and Canola, J.C: Real time B-mode ultrasound in pacas pregnancy (Agouti paca, Linnaeus, 1766).

Language : English

Source : Brazilian Journal of Veterinary Research and Animal Science. 2003, 40(1/6): 73-78.

Address : Departamento de Clínica e Cirurgia Veterinária, Faculdade de Ciências Agrárias e Veterinárias, UNESP, Prof. Paulo Donato Castellane, s/n 14884-900, Jaboticabal, SP, Brazil.

Abstract : The aim of this study was to establish the pregnancy period of pacas by means of ultrasonography. Nine pregnant pacas were periodically scanned from embryo vesicle or fetus to parturition using a two-frequency sectorial electronic transducer ultrasound of 5.0 and 7.5 MHz, in B mode. The animals were placed in an iron-bar squeeze cage and remained in standing position during the session. A dark cloth was used to cover the cage and fruits were offered during ultrasound session to avoid aggressive reactions. The earlier the stage of pregnancy, the longer was the time for ultrasound examination. All pregnancies yielded only one newborn weighing 796.5±74.36 grams and 33.46±0.60 centimeters in length (from the rostral edge of the nose to the distal portion of the tail). The length of paca pregnancy ranged from 135 to 139 days.

BDB ref. : 514

Herrera, H.M.; Davila, A.M.R.; Norek, A.; Abreu, U.G.; Souza, S.S.; D'Andrea, P.S. and Jansen, A. M.: Enzootiology of *Trypanosoma evansi* in the Pantanal, Brazil

Language : English

Source : Veterinary Parasitology; 2004; 125; 3-4; 263-275

Address : Lab Biol Tripanosomatídeos, Dept Protozool, FIOCRUZ RJ, Av Brasil 4365, BR-21045900, RJ, Brazil.

Abstract : In order to better understand the enzootiology of trypanosomiasis caused by *Trypanosoma evansi* in the Brazilian Pantanal we examined domestic and wild mammals by microhematocrit centrifuge technique (MHCT), immunofluorescence antibody test (IFAT) and polymerase chain reaction (PCR). *T. evansi* infection was detected in all species sampled with exception of the sheep and the feral pig. High parasitemias were observed in capybaras (5/24), coatis (18/115), horses (31/321) and dogs (3/112). Among these species, only the capybaras did not develop anemia. Low parasitemias, only detected by PCR; were found in buffaloes (18/43),

bovines (29/331), marsupials (1/4), small rodents (14/67), bats (7/18), and one armadillo (1/8). The highest prevalence of *T evansi* infection was recorded in horses (73%), although no neurological signs in infected horses were observed. Diagnosis through standard parasitological tests and IFAT should be used with caution since they may overlook comprovedly infected horses. The relationship between ranch management and *T evansi* infection in horse was investigated. The importance of other transmission mechanisms apart from the tabanids and reservoir hosts are discussed.

BDB ref. : 516

Silverman, M.S.; Aronson L.; Eccles, M.; Eisenstat, J.; Gottesman, M.; Rowsell, R.; Ferron, M. and Scolnik, D. : *Leptospirosis in febrile men ingesting Agouti paca in South America* Language : English

Source : *Annals of Tropical Medicine & Parasitology*.2004; 98; 8; 851-859

Address : Lakeridge Hlth Ctr, 1 Hosp Court, Oshawa, ON, L1G 2B9, Canada Canada.

Abstract : To explore the relationship between the ingestion of *Agouti paca* (AP) and human leptospirosis in Guyana, 19 febrile men who said they had hunted and eaten A. paca were screened for malaria, using bloodsmears. and for leptospirosis, using an enzyme immuno-assay that detects *Leptospira*-specific IgM. Those found positive for anti-*Leptospira* IgM were then evaluated further, with a microscopical agglutination test based on a limited panel of serovars from three pathogenic species of *Leptospira*. Although six of the 18 patients who provided suitable samples for the serology were found seropositive for acute leptospirosis, only three of the 19 patients were found smear-positive for malaria. A clinical-decision model. based on medical histories, the results of physical examinations, and the use of routine urine dipsticks. and enabling prediction of the serological results, was developed. This model, which had 83% sensitivity and 100% specificity for leptospirosis, indicated that, in the absence of serology, most febrile patients reporting A-P ingestion could be correctly treated if each was checked for malaria using traditional bloodsmears. The smear-positives should be treated with antimalarial drugs whereas the smear-negatives should be treated for leptospirosis if they had any of the following: a skin rash; lymphadenopathy; abnormal urine sediment (proteinuria or haematuria): and for no previous history of malaria. In the present study, the relative risk of leptospirosis among the patients who were smear-negative for malaria and fulfilled at least one of these four criteria was 13 (P = 0.0007). In Guyana at least, leptospirosis appears to be common among men who hunt, prepare and ingest AP. Vaccines may be the best, practical form of protection among such men.

BDB ref. : 513

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