

RELATIVE IMPACT OF STARVATION AND OIL ON DIGESTIVE AND KIDNEY FUNCTIONS OF SEA BIRDS

M. L'HOSTIS, S.LE DREAN-QUENEC'H DU, E. RISI (1), G. M DORRENSTEIN (2), J.
GUYOMARCH (3)

- (1) Centre Vétérinaire de la Faune Sauvage
Ecole Nationale Vétérinaire de Nantes, France
(2) Veterinary University of Utrecht, The Netherlands
(3) CEDRE, Brest, France



Introduction

● Context

- Since the wreck of Erika Tanker in December, 1999 off the Atlantic French coasts : numerous studies to improve the management of the oiled birds
- Choice of rehabilitation *versus* euthanasie of all birds



Introduction

- **Context**

- **Choice of rehabilitation**

- **Need of upgrading rehabilitation = selected birds able to be rehabilitated**
 - Need to be able to determine the irreversible character or not the evolution of the hurts
 - Need to determine the cause of the hurts observed to birds.
 - **to be able to set up a treatment adapted to this cause**

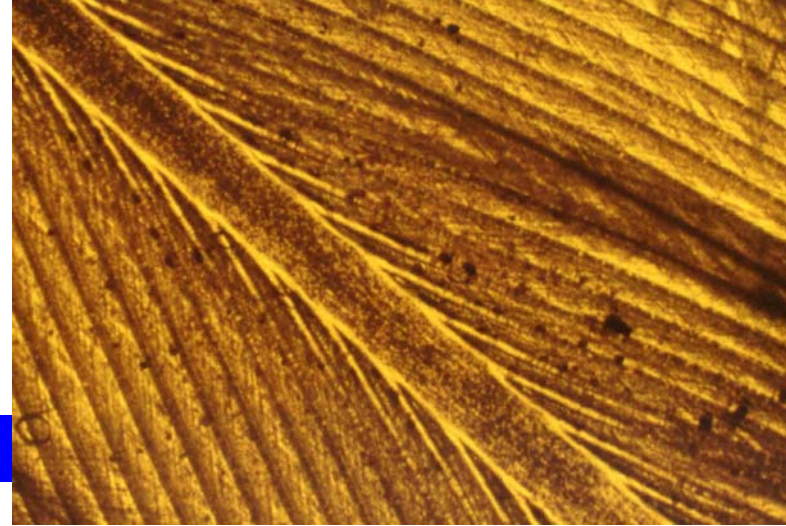


Introduction

● Problems

– Causes of mortality of the oiled birds:

- toxicity of the hydrocarbon: considered for a long time as the only one or at least more important.
- secondary infections (infectious and traumatic): need to objective criteria of triage, notably in connection with the irreversibility of the lesions.
- dehydration and the starvation of birds



Introduction

- **Problems**

- **Previous studies :**

- on not oiled birds but fasting for the other reasons: lesions observed at the digestive tract comparable to those observed to the oiled birds.
 - lesions of kidney: in connection with the carcinogenic character of the PAHs or with the state of intense dehydration of birds ?



Objectifs



- To try to understand the major cause of these two lesions observed to the oiled birds:
 - Haemorrhagic diathesis with autolysis of the digestive wall
 - Metaplasia of ureteral tract
- In order to affine criteria of triage



Questions



- what are the respective parts of the poisoning in hydrocarbons and the fast (food and water) ?
- Digestive tracts lesions:
 - If the fast has an important part in the pathogeny of the lesions, what is the mechanism and in particular when these lesions become irreversible?
 - Is there a role of the digestive bacterial flora? marker pen of the more or less advanced character of these hurt as the presence of bacteria of pathogenic *Escherichia coli*?
- Kidney lesions:
 - Pathological meaning of the observed lesions
 - Relation with the presence of the PAHs.



Methods

