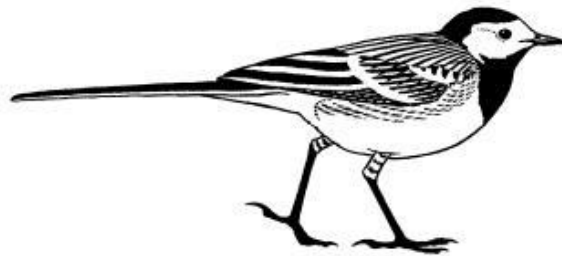


# THE CHAMBER OF HORRORS OF TRAVEL MEDICINE

Gunnar Hasle, MD

Reiseklinikken – Oslo Travel Clinic



3RD NORTH EUROPEAN CONFERENCE OF TRAVEL MEDICINE HAMBURG 2010

# Travel medicine consultations may be monotonous:

- Vaccines: DPT, polio, hepatitis A
- Dont forget travel insurance
- Use condoms if you are stupid enough to engage in casual sex with the local population
- Mosquito prophylaxis
- Food, water, and hand hygiene
- Et cetera.....

- Quick sand
- Sharks
- Crocodiles
- Big cats
- Candirù
- Piranhas
- Snake bites
- Spiders
- Guinea worm
- Elephantiasis
- Leprosy
- Black Death/Plague
- Pirates
- Cannibals



These may be not the most  
important topics in travel  
medicine

These may be not the most  
important topics in travel  
medicine

- But certainly  
the most  
exciting!

Tropical medicine has provided novelists with  
unlimited ideas of what you might encounter  
in tropical regions.

**Welcome to the world of  
Tarzan, James Bond and  
Indiana Jones!**



*Scene from David Lean's movie "Lawrence of Arabia" (Horizon/Columbia pictures, 1962).*

# Quicksand

- Dry quicksand
- Loosely packed sand
- Wet quicksand
- Thixotropic gel made up of sand (clay), salt and water

A research team let sand settle in an upward airflow, resulting in a packing fraction of 41%. Comparatively light objects could be made to sink in this sand (Lohse et al. Nature 432, 689 – 690, December 2004). The authors could not rule out the possibility that this phenomenon might occur in nature, and represent a danger to humans.



# Sharks

There are 50-60 shark attacks worldwide per year; in average 8 fatal.

Three dangerous species of sharks

- Great white shark
- Tiger shark
- Zambesi shark or Bull shark



As far as we know: No other  
shark species may kill humans,  
e.g. Reef sharks and  
hammerhead shark

# Can we influence the risk of being killed by a shark?

- Myth 1. The risk of being attacked depends on your behaviour while encountering a shark: "stay calm and look into the sharks' eye".



Photo: Ken Kizer

# Can we influence the risk of being killed by a shark?

- Myth 1. The risk of being attacked depends on your behaviour while encountering a shark: "stay calm and look into the sharks' eye".

## Facts:

Normally you don't see the shark before it attacks, which in half of the cases occur in very shallow water.  
Speed: 40 km/hour.



Photo: Ken Kizer

# Sharks

- Myth 2. "Sharks are not evil creatures"

# Sharks

- Myth 2. "Sharks are not evil creatures"
  - For a shark eating a man is not an evil act
  - Sharks may get used to eat humans

# Sharks

- Myth 3. "Sharks have a poor vision"

# Sharks

- Myth 3. "Sharks have a poor vision"

## Facts:

- They are attracted, and may be provoked by blood: one drop of blood in 7.500 liter water causes disturbance in a shark aquarium.
- They have a very acute electric sensory system.
- Therefore, you cannot hide visually from a shark
- Their vision is adequate for short range use, during an attack.



Answer to the previous question:

Yes, we can influence the risk of  
being killed by sharks:

Don't participate in commercial shark  
safaris involving unprotected diving  
with tiger sharks.

# Crocodiles

- Nile crocodiles kill about 1000 people every year, mainly local people living by the rivers
- Australian salt water crocodiles are quite as dangerous, but normally they don't live in close contact with people



# Crocodiles

- Capable of speeds of up to 30 km/h under water
- It can be fatal to underestimate the speed of a crocodile on land
- May knock a man off balance with swipe of the tail
- May leap out of the water, half the length of the body
- Virtually invisible when submerged
- May be hidden in astonishingly small streams
- Roll to kill the victim



*Never trust a smiling Nile crocodile.*

# Big cats

- Tigers kill 600-800 people each year
- Lions and leopards: about 400 each
- Jaguars and cougars rarely kill people

**If you don't  
tolerate to see a  
terrible  
picture: don't  
proceed to the  
next slide**

# Big cats

- Tigers kill 600-800 people each year
- Lions and leopards: about 400 each
- Jaguars and cougars rarely kill people
- Big cats eat soft tissues, and leave the bones for scavengers

## Cougar victim:



Photo Ben Galloway





# Would Tarzan have had a chance, fighting lions, armed with a knife ?

- What is the best option when being attacked by a large carnivore?
- Play dead?
- Fight back?
- Flee?
- Help people being attacked?

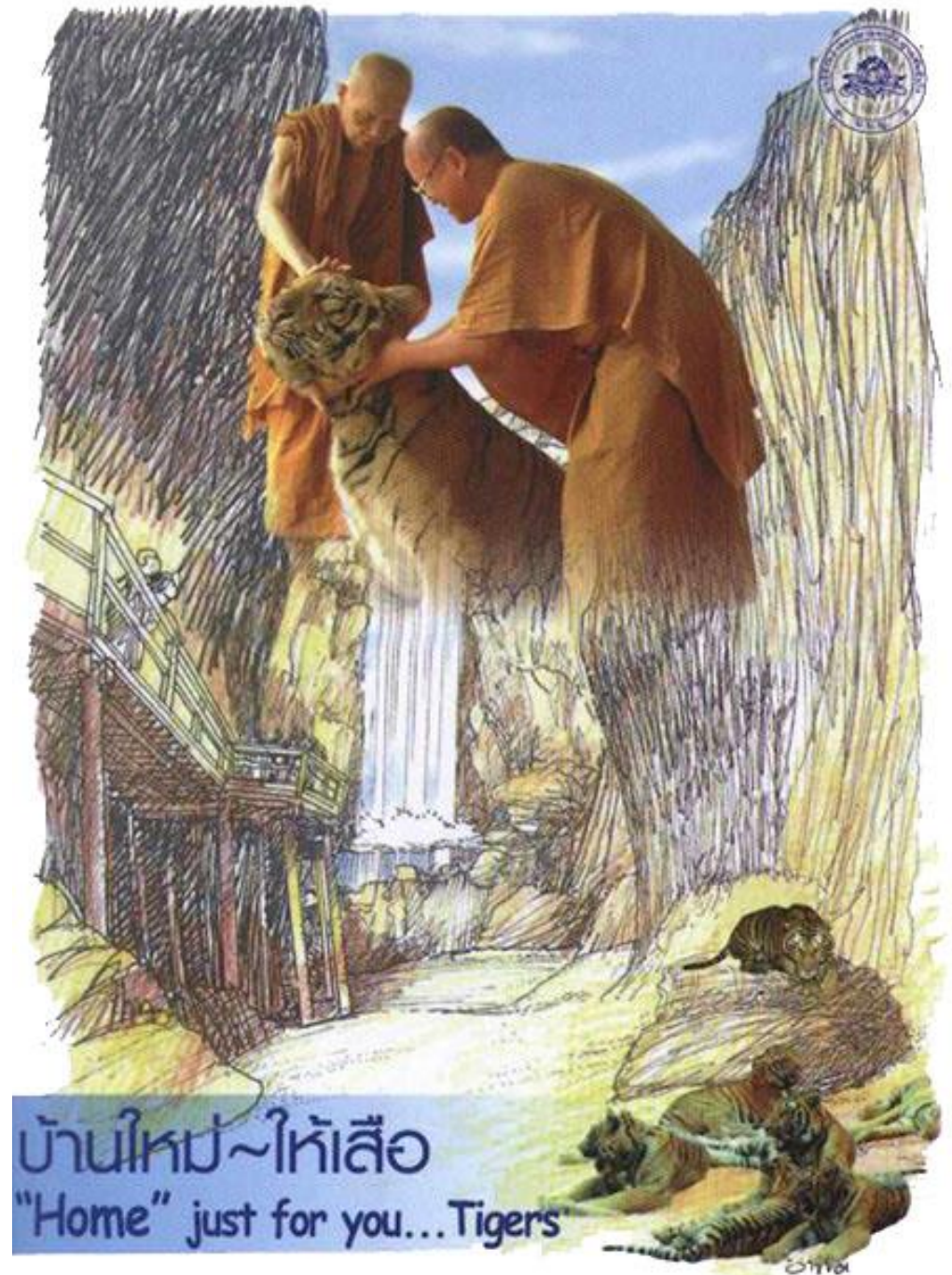


Maureen O'Sullivan and Johnny Weissmuller.



# Tiger temple in Thailand

Monks, tourist and tigers are  
living peacefully together

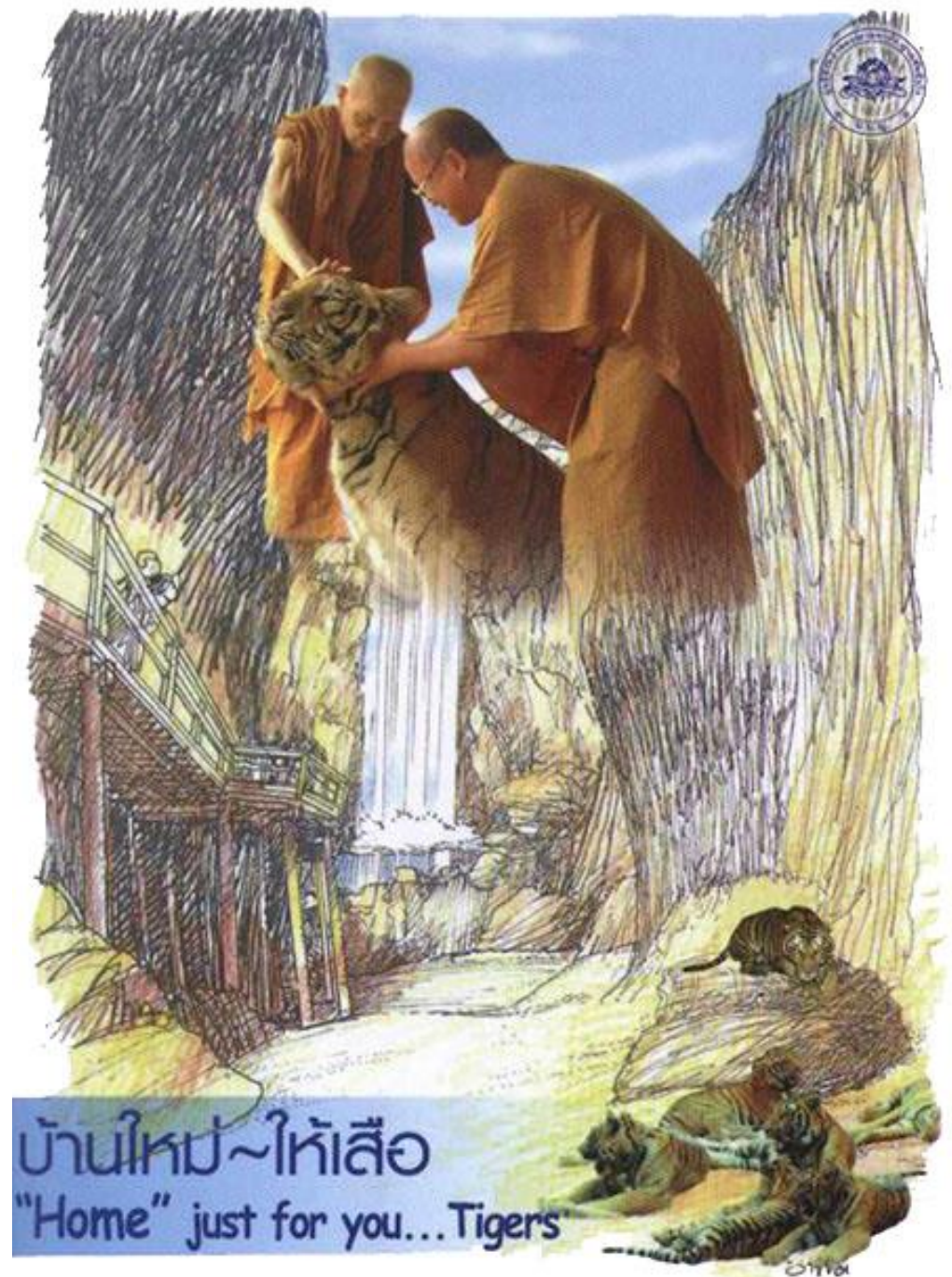




# Tiger temple in Thailand

Monks, tourist and tigers are  
living peacefully together

My advice would be:  
Don't trust a tiger.



# Candirú, *Vandellia cirrhosa*





# Candirú



# Piranhas

- No documented cases of people being killed by piranhas
- They taste quite good
- We are more dangerous for them than they are for us



James Bond "You only live twice" Copyright: Metro-Goldwin-Mayer 1967





# Snake bites

- 60000 deaths per year, mainly local people
- Mortality  $<1:100$ . Therefore: "good effect" of traditional medicine
- First aid and antivenom depends on species
- Always: Seek transport in the direction of health care



Rinkhals *Hemachatus haemachatus*



Fer de lance *Bothrops atrox*

# Cobra bite

- One bite contains enough venom to kill > 100 people
- Necrotoxin
- Neurotoxin
- Antivenom blocks the neurotoxin







# Spiders

- 30.000 species
- 20-30 are potentially dangerous to man
- Black widow: immediate cardiac collapse
- *Loxosceles*: necrotoxin



Sean Connery in "Dr No". Copyright: Metro-Goldwin-Mayer 1962



# To what extent is leprosy contagious?

- Air-borne
- Probably very contagious
- Low attack rate
- Ben Hur was hardly in any danger









# Pirates

- Commercial vessels: Losses 13-16,000,000,000 US\$ per year
- Yacht piracy: probably underreported

What is the best option if pirates attack your yacht?

Should you carry a firearm or not?

- They are better gunmen than you
- Legal issues



From the première of "Pirates of the Caribbean"



Robert Högfeltdt (1894-1984): "Farlig kust" ("Dangerous coast")



# The daily horror of travel medicine



If any of you come to Oslo,



If any of you come to Oslo,

please visit my website:

<http://www.reiseklinikken.no/horror.html>

