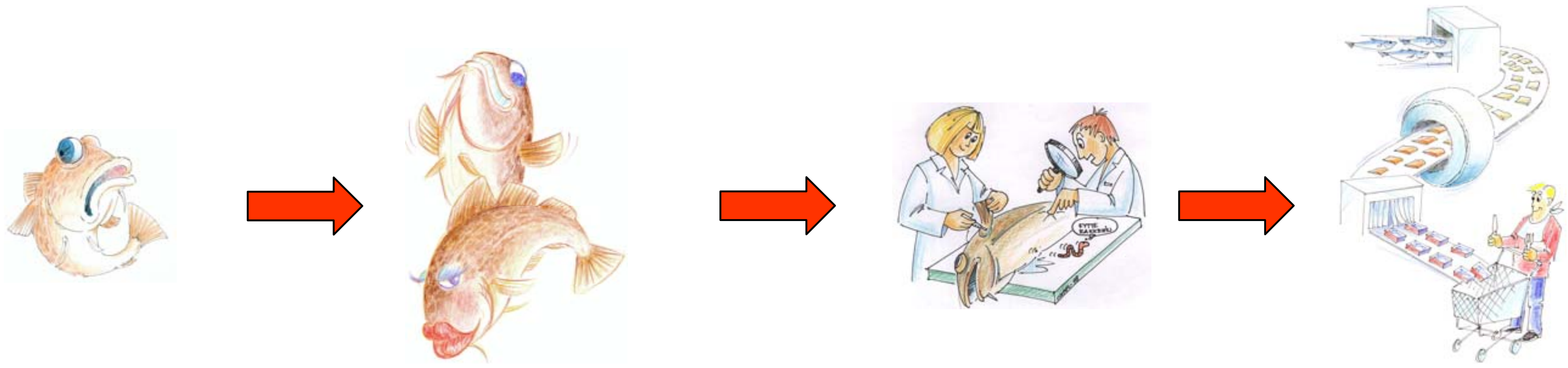
ETHICOD - ethical quality of farmed cod in a full value chain approach

Børge Damsgård
Hilde Toften
Øyvind Aas-Hansen
Kjell Midling

ETHICOD

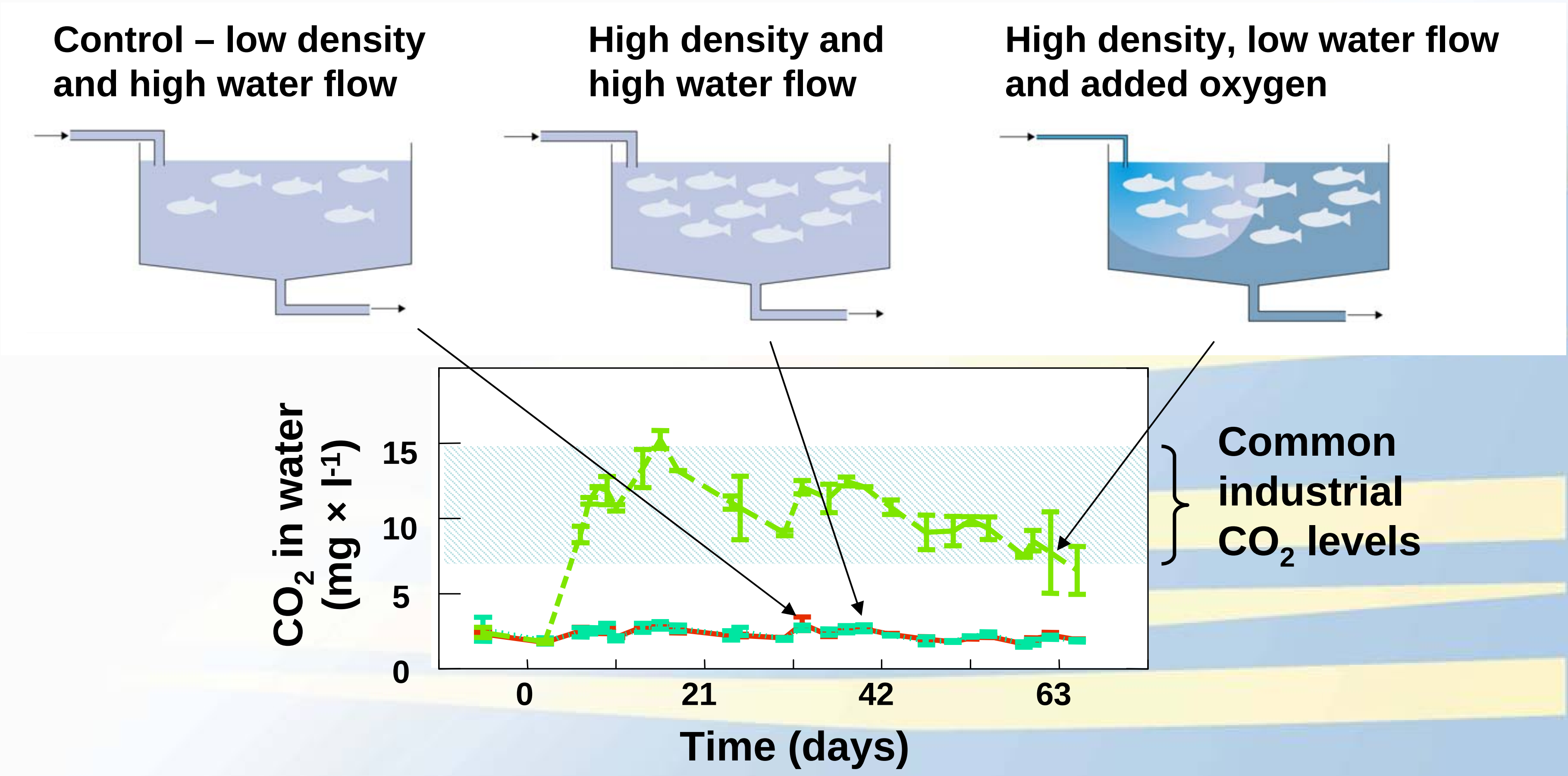
Atlantic cod from juvenile fish to the consumers



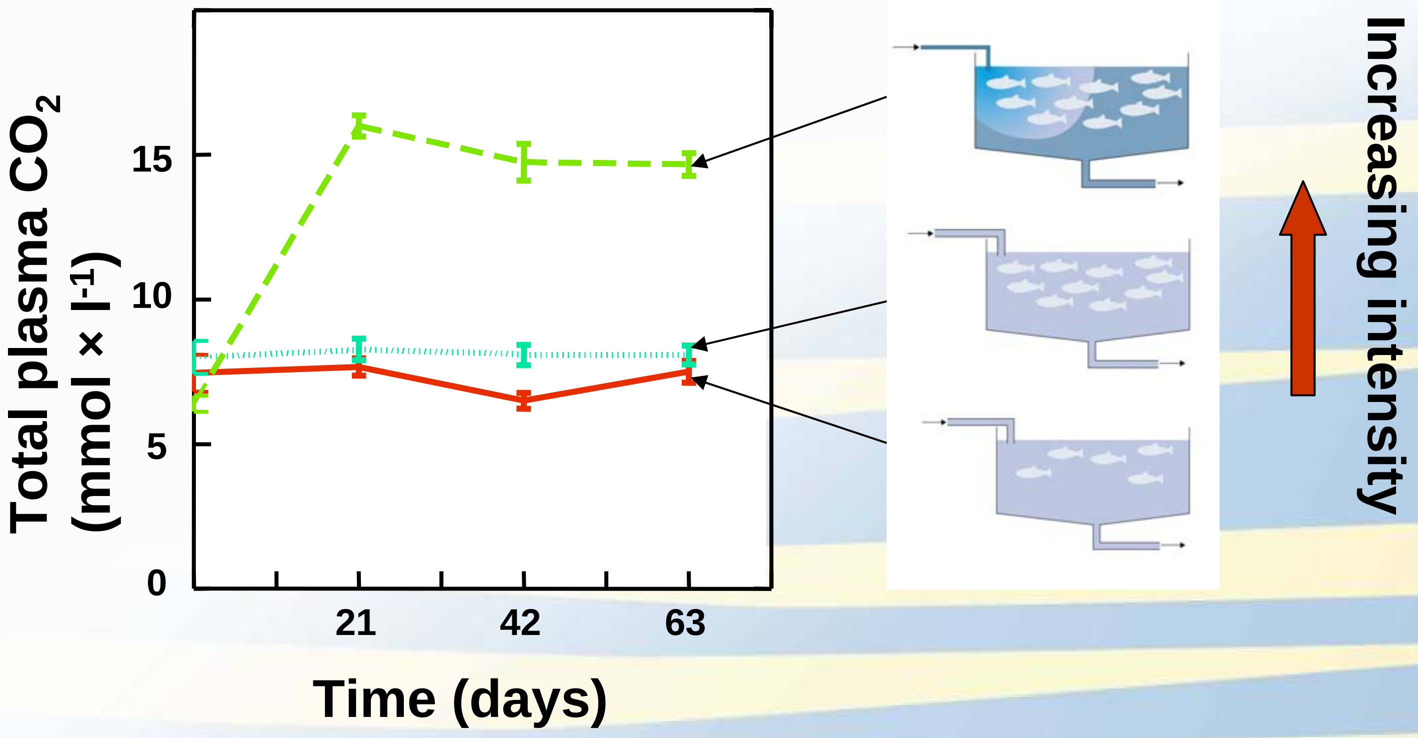
Juvenile welfare	Ongrowing at sea	Ethical slaughter	Product quality	Sensory test	Consumer study

Part 1: Juvenile welfare

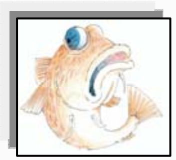
Increasing intensity



Was the cod affected by the high CO_2 levels?

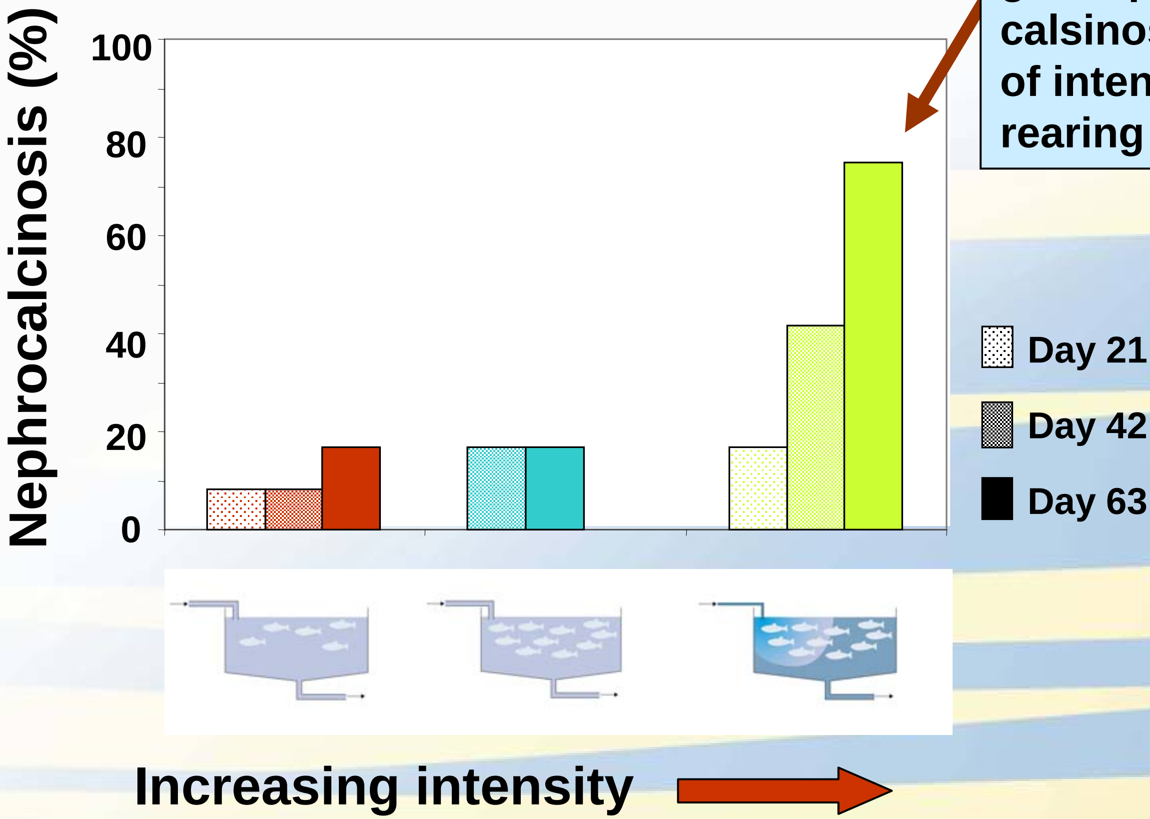


Can intensive rearing lead to nephrocalcinosis?



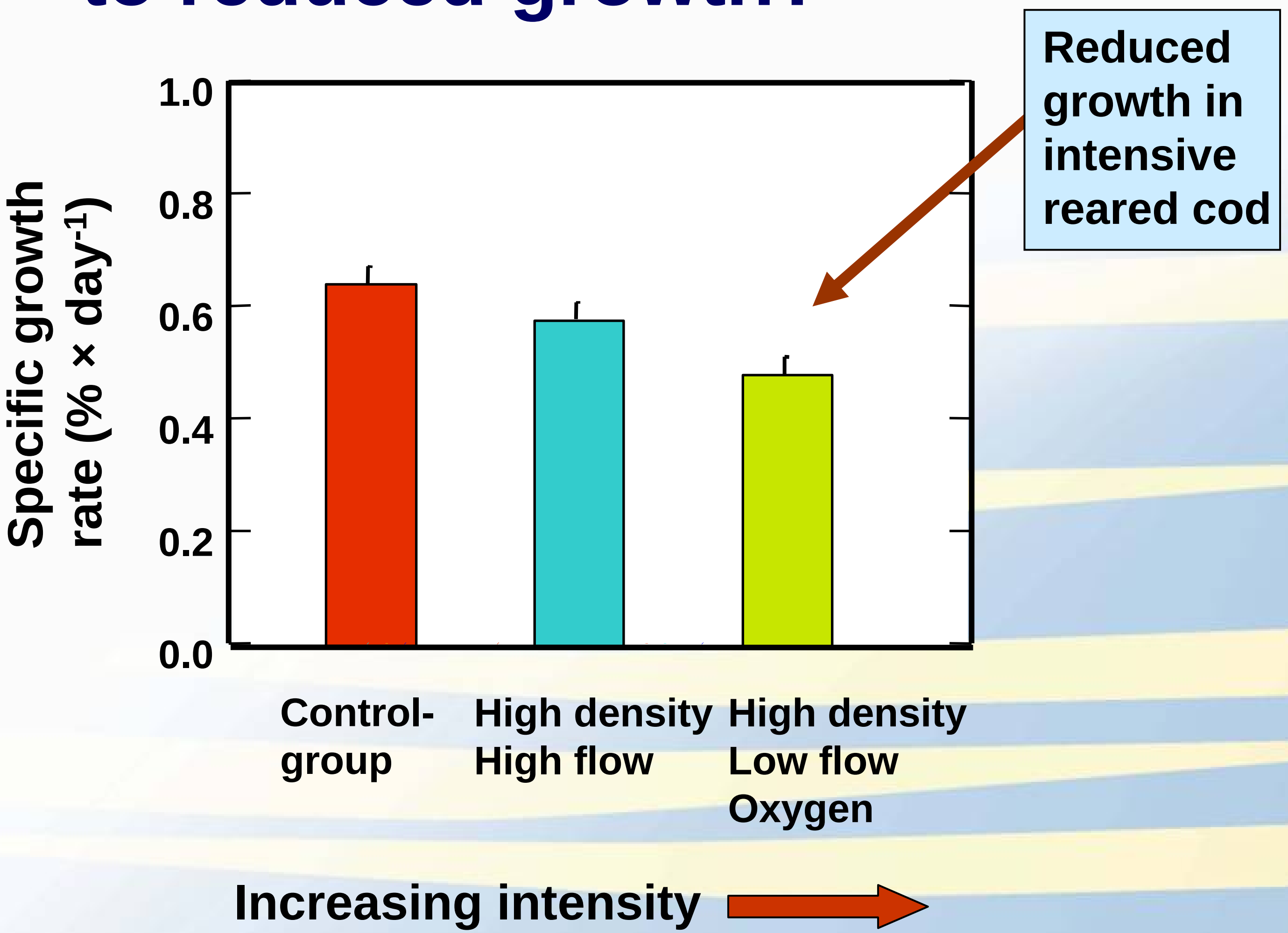
Normal kidney tissue

Kidney tissue with nephrocalcinosis

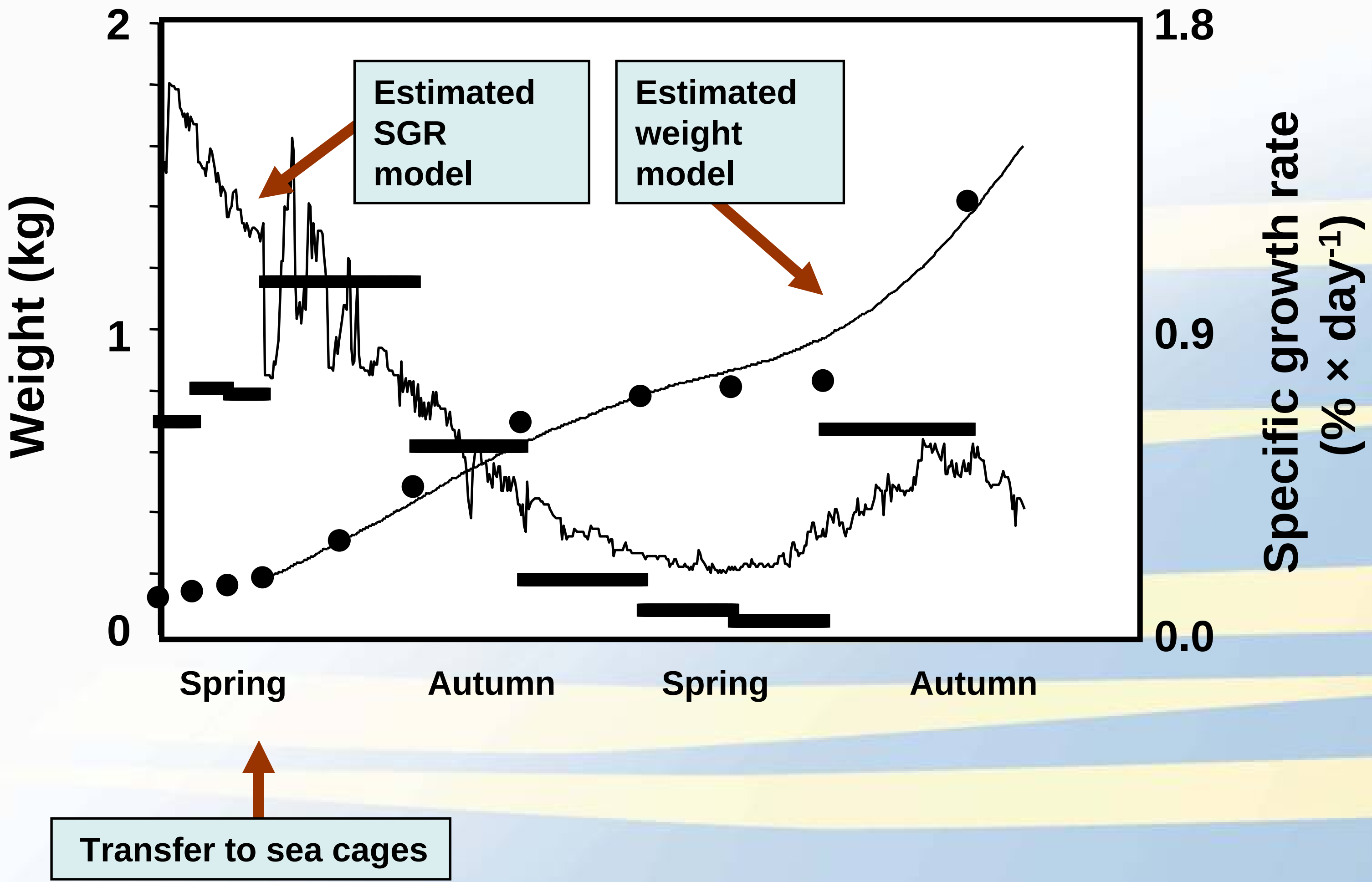


The juvenils got nephro-calsinosis of intensiv rearing

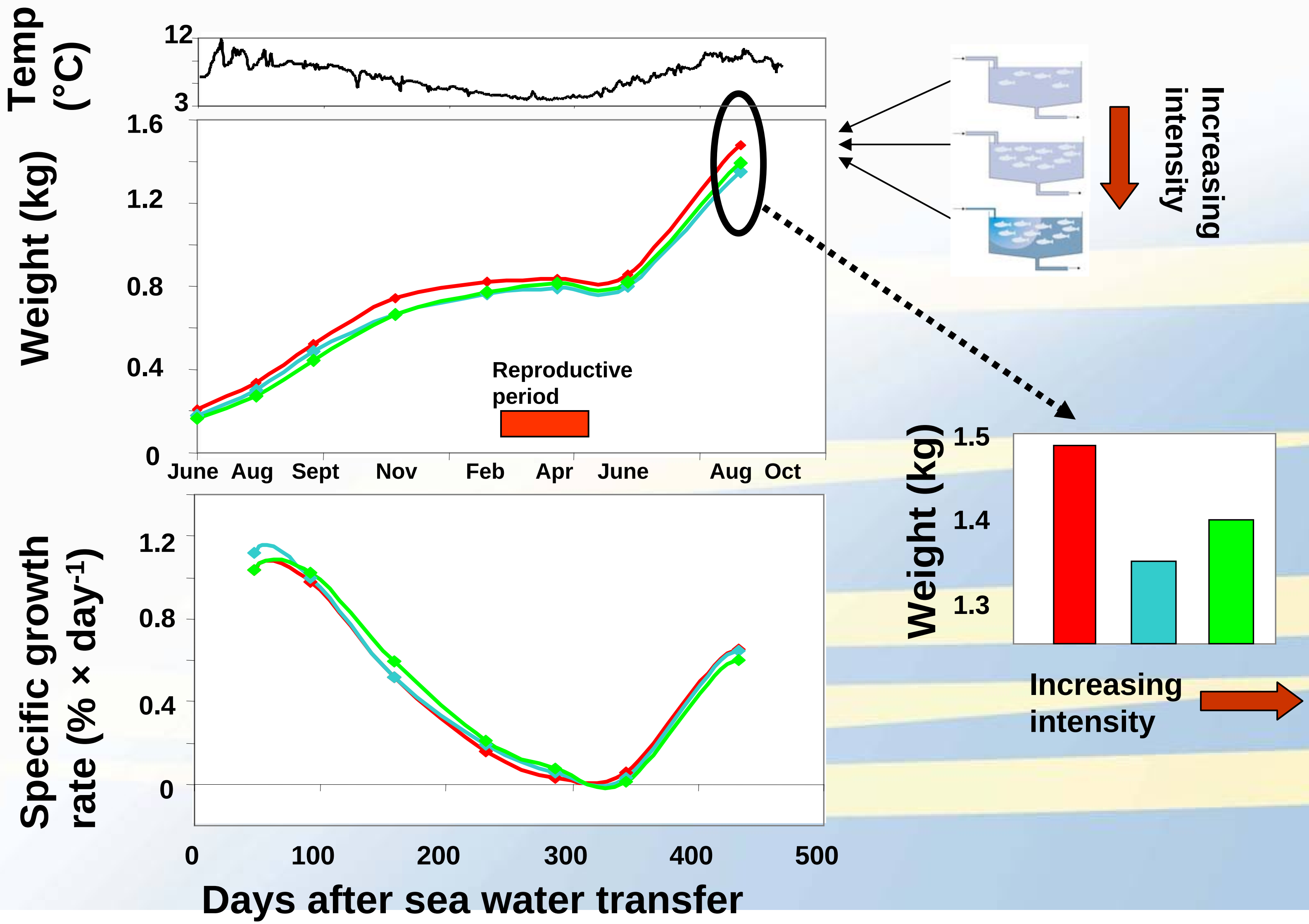
Does intensiv farming lead to reduced growth?

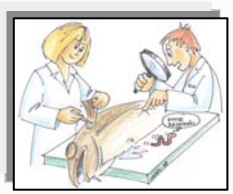


Part 2: Ongrowing at sea



Was the growth affected?





Part 4. “Ethical” pre-slaughter treatment of cod

Low stress

“Ethical” treatment

Density 50 kg × m^3

Standard stress

“Normal” treatment

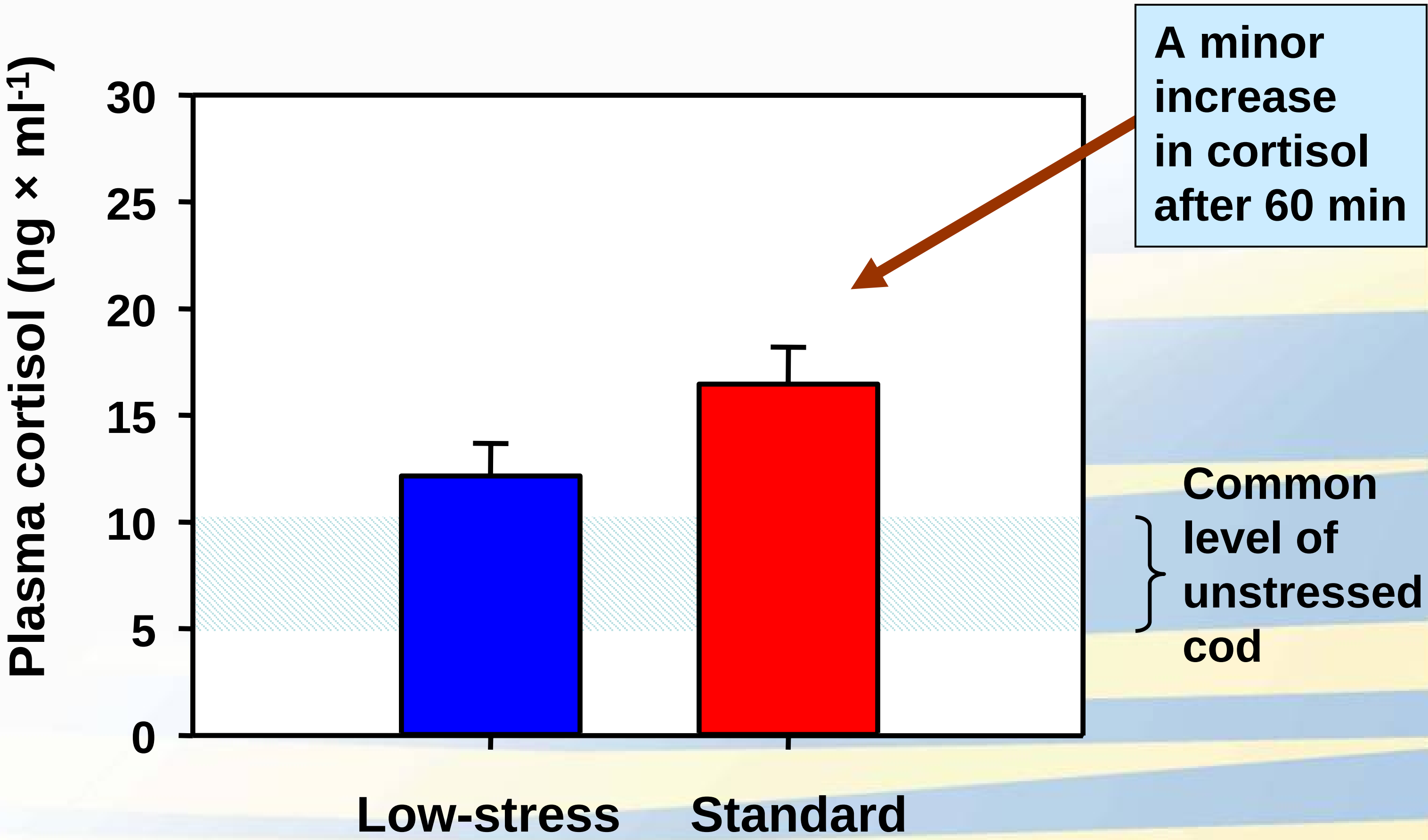
Density > 500 kg × m^3 in 60 min

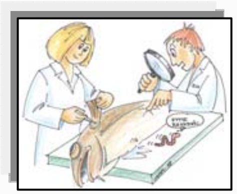
Killing

Blood sampling

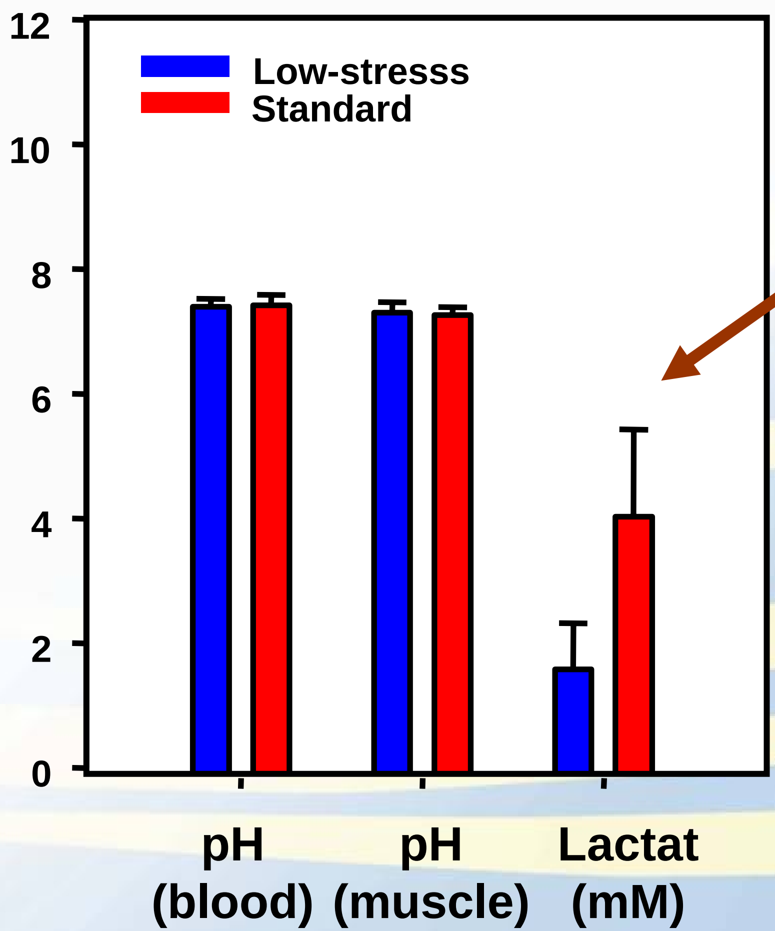
Processing

Was the cod stressed?





Was the product quality affected by stress?



Metabolic effects of stress after 60 min

The next steps…..

- Sensory evaluation by trained panel
- Consumer product perception (”in-home” and lab)
- The effects of ethical product information
- The relationships between consumer product perception and fundamental attitudes to sustainability

A better life with seafood…

www.seafoodplus.org