

Genetics in support of fisheries and aquaculture management

17-19 September

Faro, Portugal



ICES
CIEM



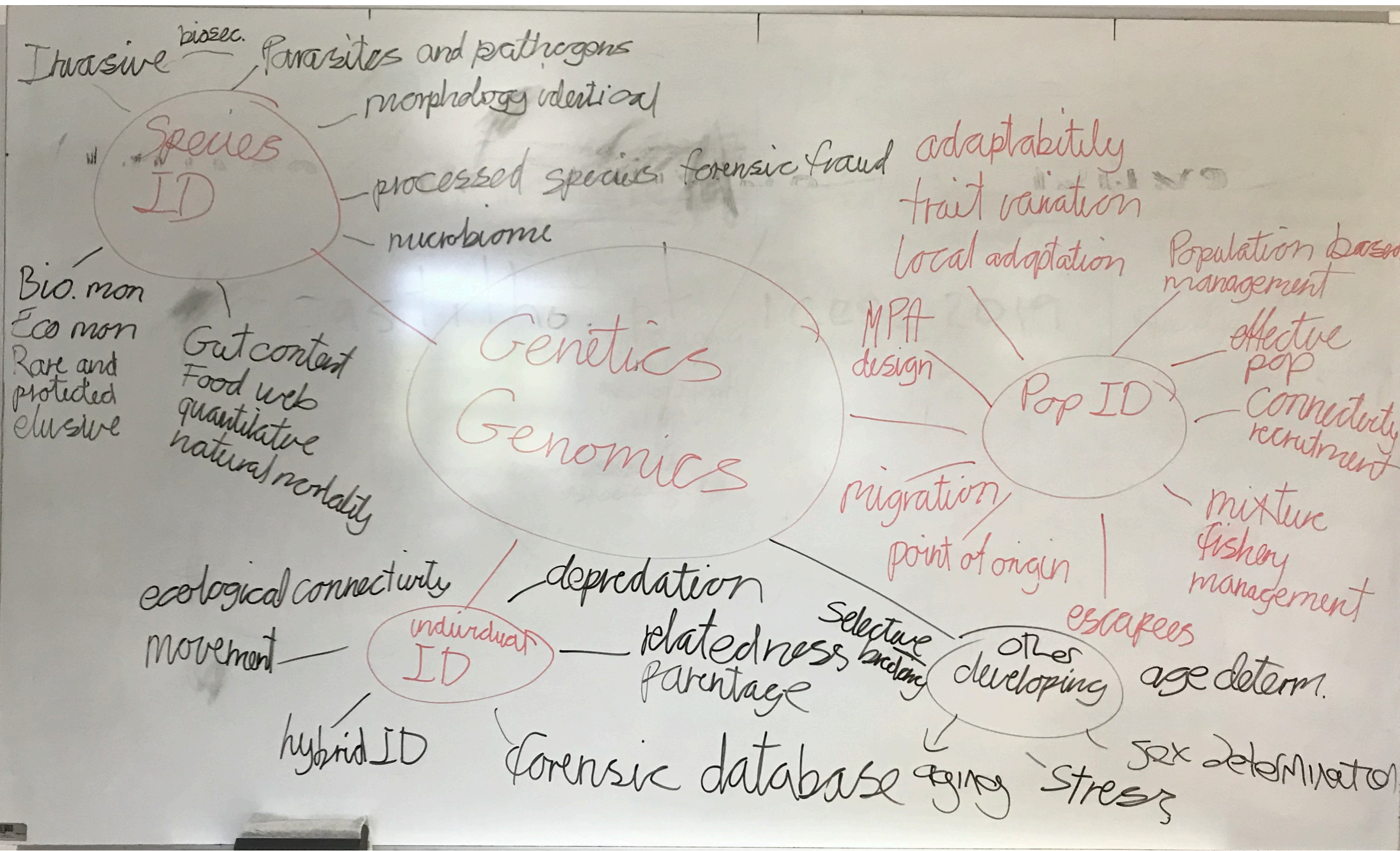
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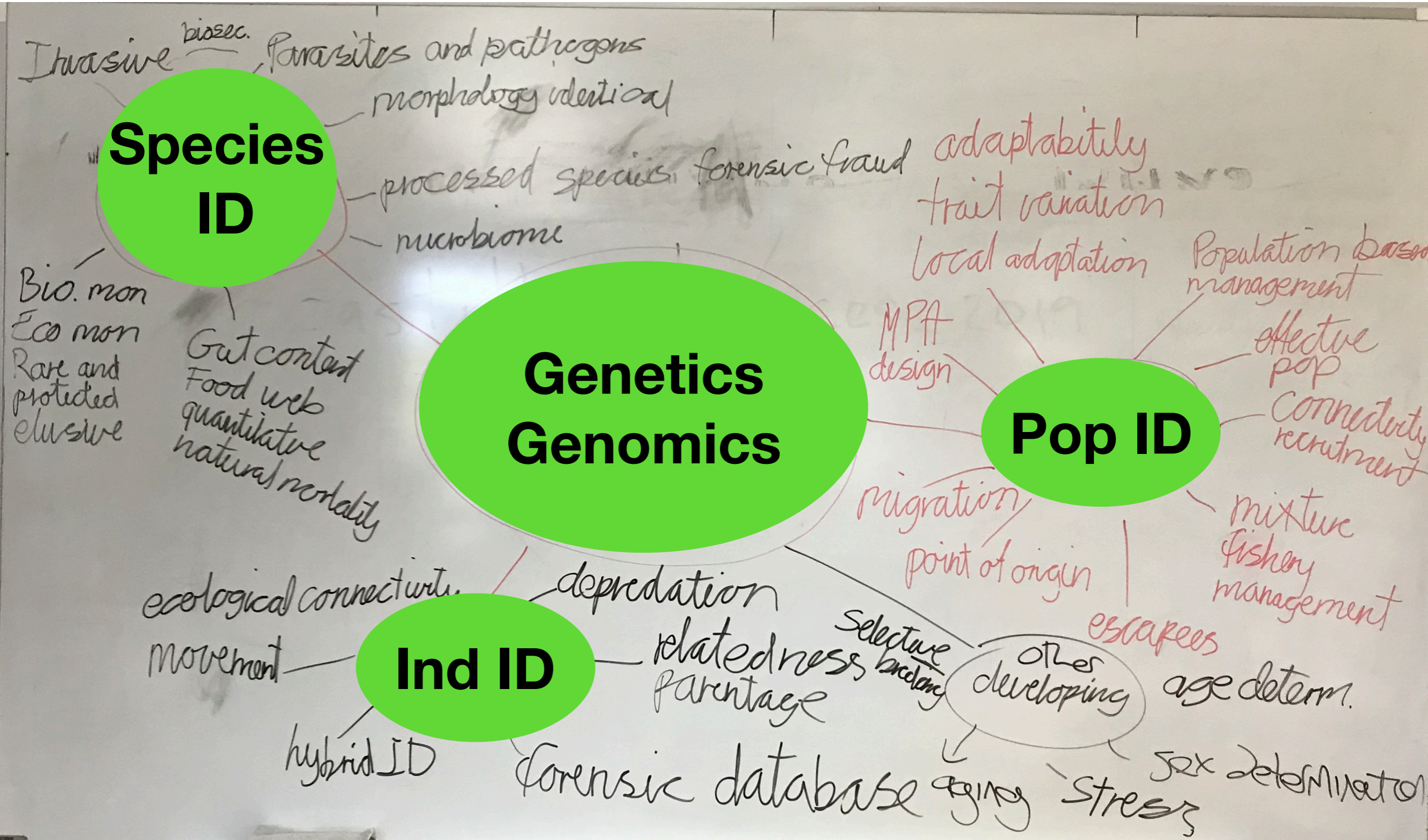
CCMAR
Centro de Ciências do Mar



Designing Integrated Management Plans to address a range of fisheries scenarios

Scheduling and overall time: 60 minutes







3

Species ID

Invasive ^{biosec.} Parasites and pathogens
morphology identical
processed species forensic fraud
microbiome

Bio. mon
Eco mon
Rare and protected
elusive
Gut content
Food web
quantitative
natural mortality

**Genetics
Genomics**

Pop ID

2

adaptability
trait variation
local adaptation
Population based management
effective pop
connectivity
recruitment
MPA design
mixture
fishery management

migration
point of origin
escapes
age determ.
sex determination
stress
aging
other developing

1

Ind ID

ecological connectivity
movement

depredation
relatedness
parentage
hybrid ID
forensic database
selective breeding



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Designing Integrated Management Plans to address a range of fisheries scenarios

Group work: 30 min

Overall reporting:

total 30 min (10 min/group= 5 min discussion,
5 min = reporting)



Designing Integrated Management Plans to address a range of fisheries scenarios

Group composition
Choose rapporteur



Name	Group
Amanda Lazdina	2
Andhika Prasetyo	1
Daniela Lucente	1
Franziska Schade	3
Iker Pereda	3
Ingrid Tulp	3
Iraide Artetxe-Arrate	2
Joana Robalo	3
Kristin Helle	3
Marine Cusa	2
Miso Pavicic	1
Nikolai Klibansky	1
Ole Thomas Albert	2
Saemundur	1
Sandra Martins	1
Sara Francisco	2
Sara Maggini	3
T�erence Legrand	2



Designing Integrated Management Plans to address a range of fisheries scenarios

Scenarios into management questions (Manager –
formulate questions)

Information covered here and where possible an
integrated approach utilising standard fishery
practices incorporating genetic/genomic tools



GROUP 1

Individuals

Western Mediterranean and Iberian stocks of **hake** – managed and assessed separately – have different minimum landing sizes (Iberian – 27 cm and W M – 20cm).

Problem of misreporting under-sized individuals from the Iberian stock into the Mediterranean – what would the Manager have to implement to deal with misreporting in the context of optimal exploitation of both stocks.

Manager: Nikolai



GROUP 2

POPULATIONS

Genetic evidence of one subpopulation of **Atlantic tuna** in the SW of the stock distribution which is believed to be more depleted than the rest of the stock. How can you deploy tools available to increase the likelihood of optimal exploitation?

Manager: Ole



GROUP 3

SPECIES

Your fisheries agency is being pressurised to open a new **mesopelagic fishery** and you are required to set up a management plan to exploit those species in agreement with international standards of optimal exploitation.

Manager: Ingrid