

Experimental designs

KOB 2018

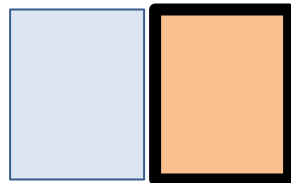
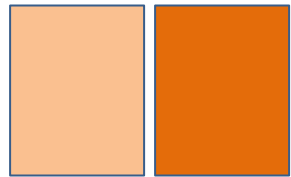
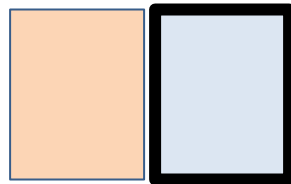
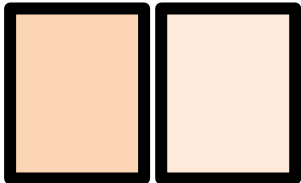
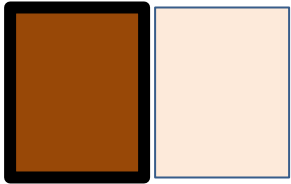
**Role of Upwelling under different
temperature regimes**

System:

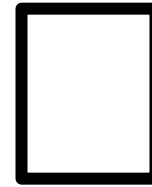
Macrophyte community including
Fucus, Zostera, mesograzers, filter
feeders, predators

REGRESSION

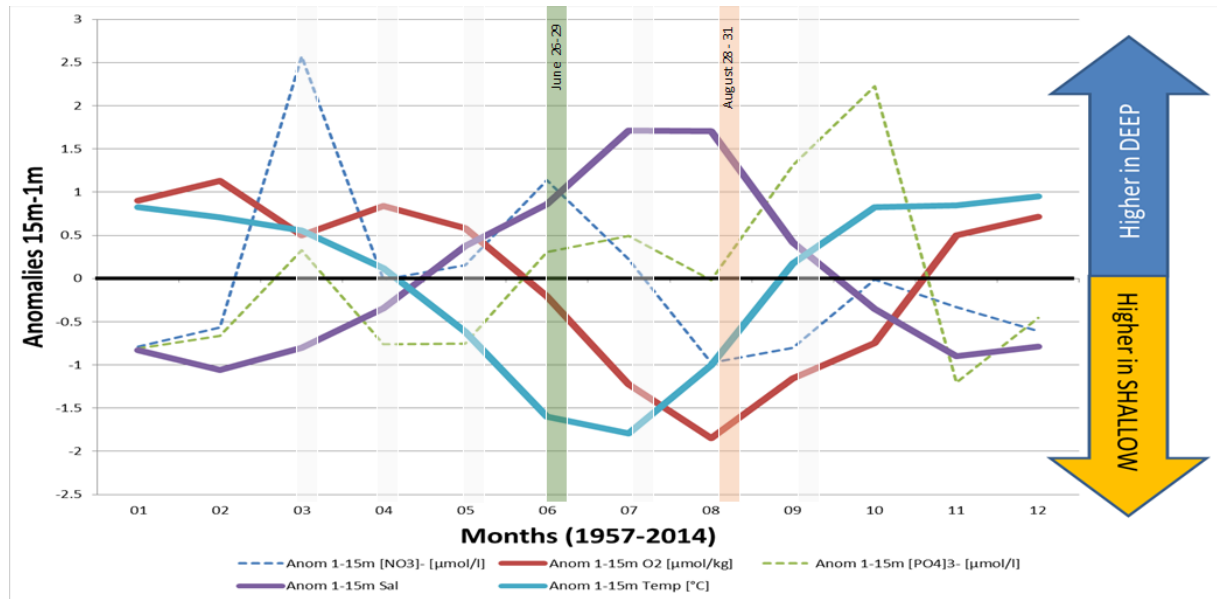
6T, 2Up



F1:
Warming



F2:
Upwelling



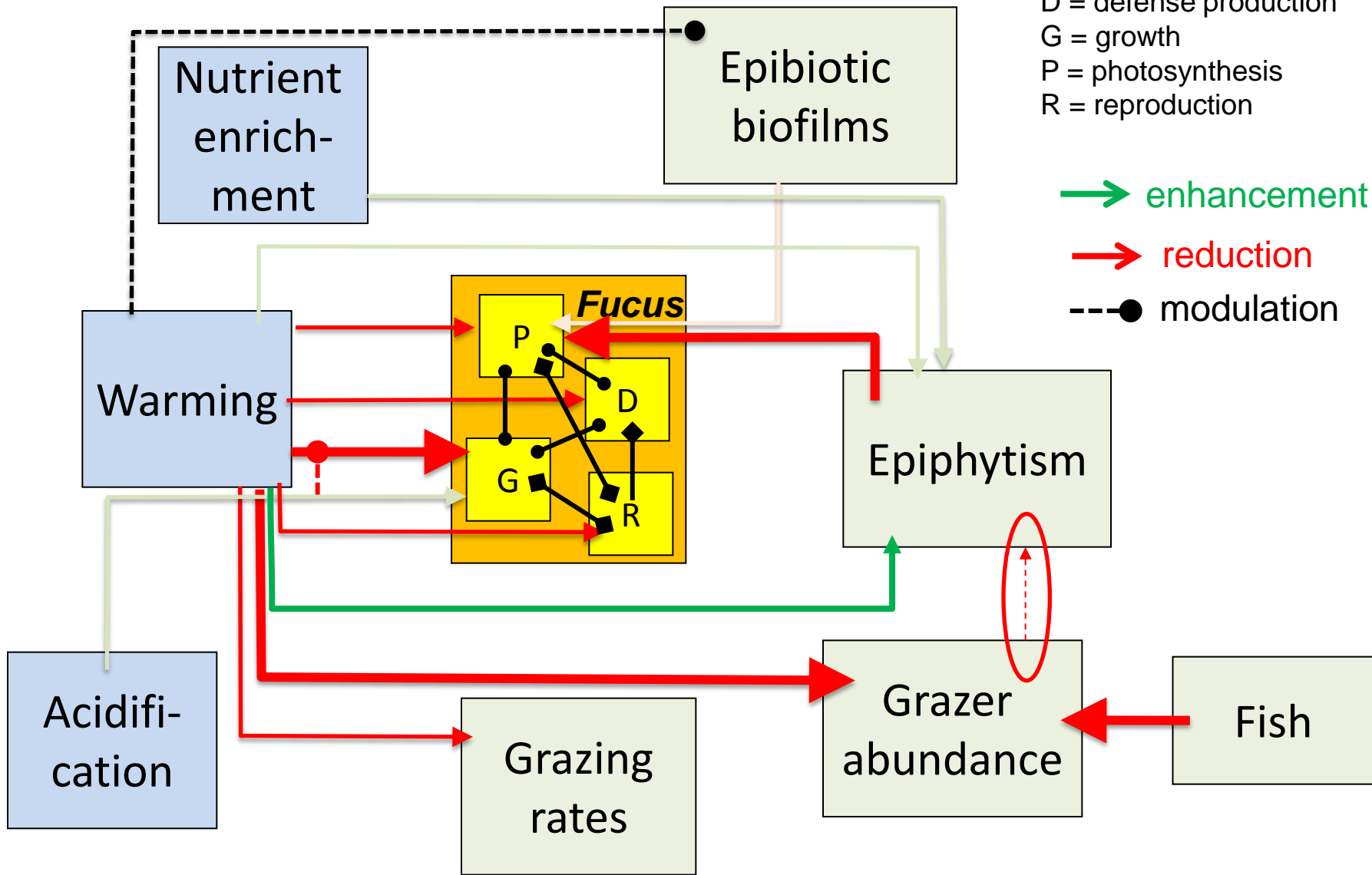
June higher salinity, lower temperature

August lower temperature, much higher salinity, much lower oxygen

Summer

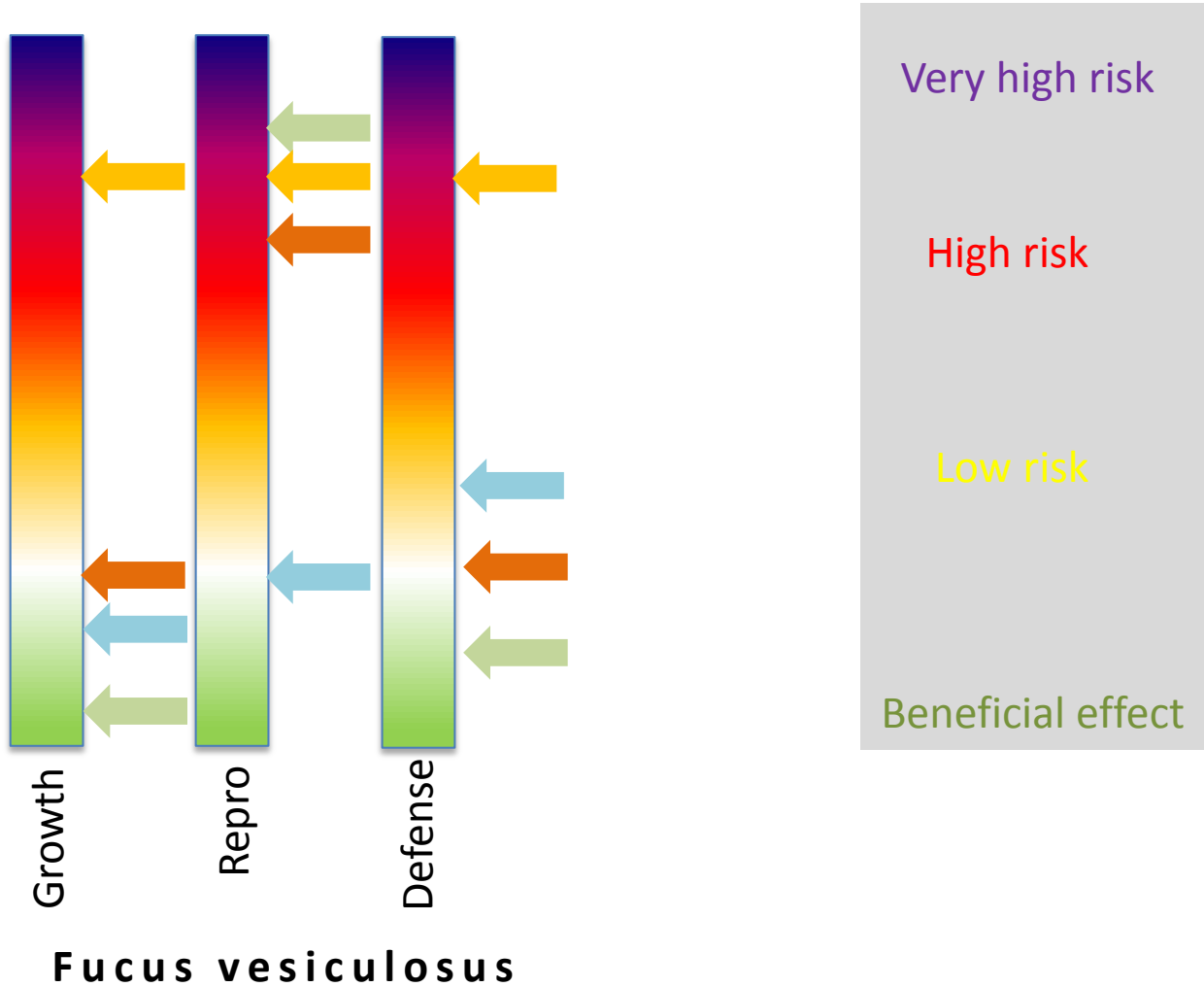
Performance items:
D = defense production
G = growth
P = photosynthesis
R = reproduction

→ enhancement
→ reduction
---● modulation



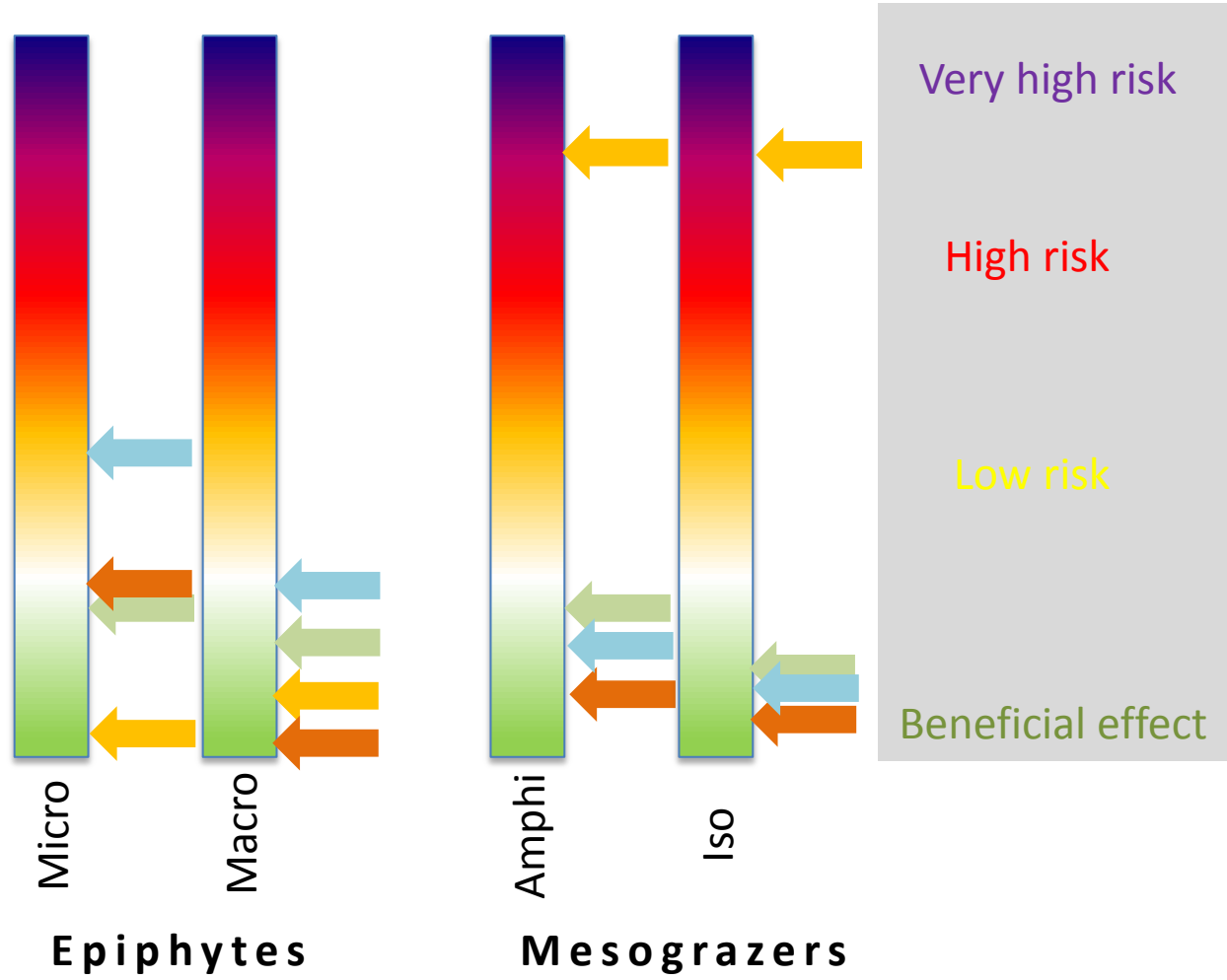
Burning ember for the fate of a Fucus community

Spring ← Winter ←
Summer ← Autumn ←



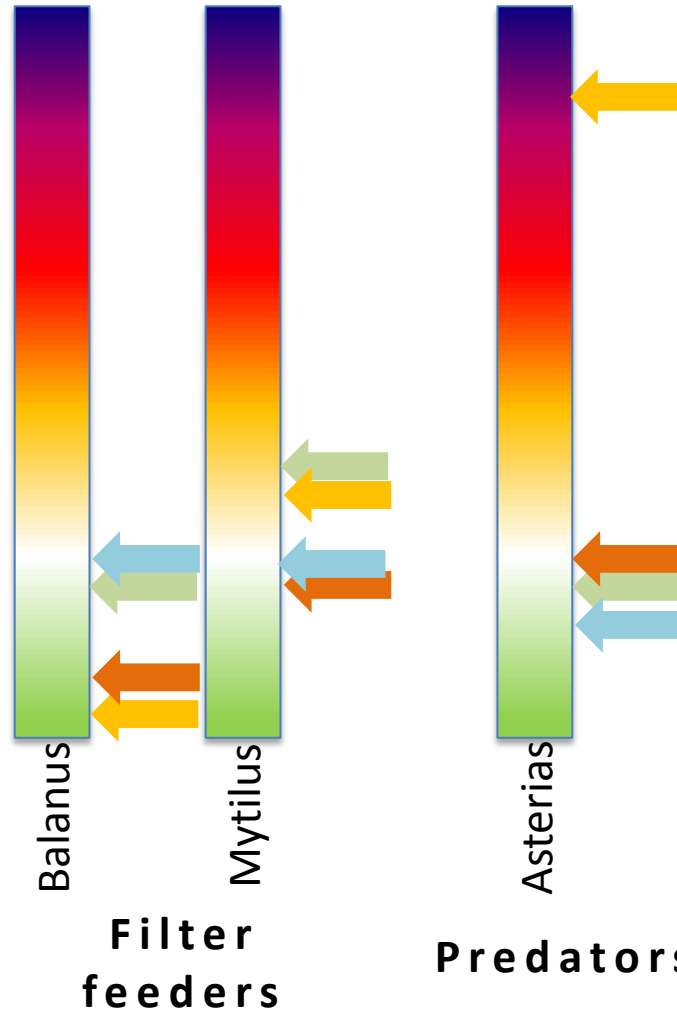
Burning ember for the fate of a Fucus community

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Burning ember for the fate of a Fucus community

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Native macroalga

Fucus
vesiculosus
(*Maryam et al*)

Native seagrass
Zostera marina

Filter feeder
Mytilus edulis
(JV)

Native consumers

Carcinus meanas
Asterias rubens
(CP)

Competition
among CCM and
non-CCM algae
(FW)
(*Fanny et al*)

Interaction between
invasive macroalga
Gracilaria
vermiculophylla
and native Fv
(GR)

Mesograzers
Gammarus
Idotea
Littorina
(MI)

Modeling of fluxes
(TGH)

Metabolic rates
(*Fernando et al*)

Rhizosphere and
Sediment microfauna
(*Aschwin et al*)

Invasive
consumer
Hemigrapsus
Sanguineus
(CP)

Epibionts
Bacteria (MS, GP)
Bryozoa (MW)

Microfouling
(*Sergey et al*)

