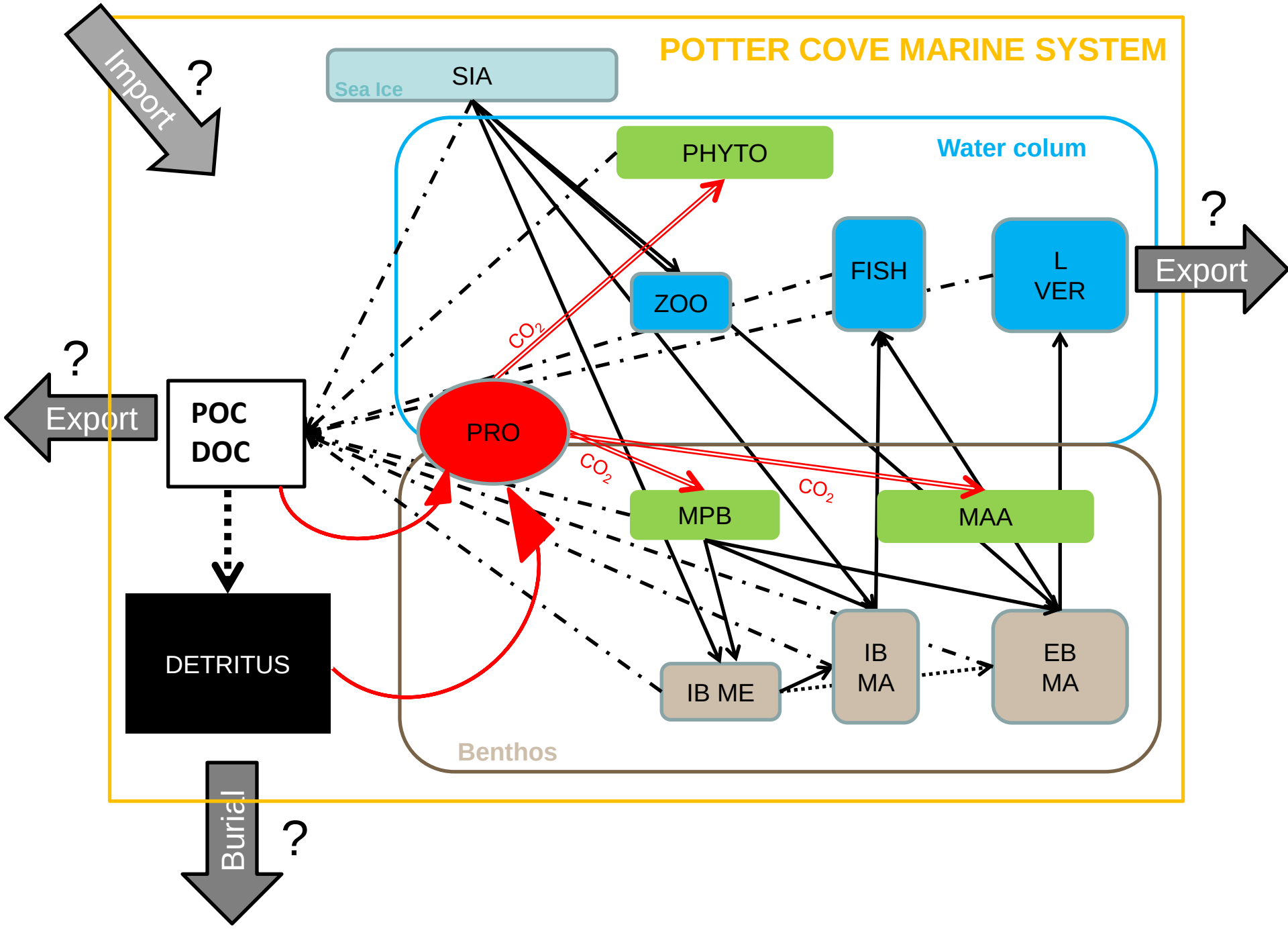
POTTER COVE MARINE SYSTEM
Import
?
Sea Ice
SIA
PHYTO
Water colum
ZOO
FISH
L
VER
?
Export
?
Export
POC
DOC
PRO
CO_2
CO_2
CO_2
MPB
MAA
DETRITUS
IB ME
IB
MA
EB
MA
Benthos
Burial
?

SIA = Sea Ice Algae as the seasonal input from the sea ice melting in spring
PHYTO = phytoplankton also including cyanobacteria
L VER = large vertebrates (seals, penguins, whales and birds)
FISH = all notothenoid fishes which have rather demersal behaviour although they may spend time on the bottoms
ZOO = zooplankton (krill and other smaller or larger plantkonic metazoans such as flagellate protozoans, calanoid copepods or salps)
PRO = procaryotes intended as bacteria and archea involved in the microbial loop. Here the PRO are considered in one box for practicality, but they indeed are present both in the water column and in the sediment
MPB = microphytobenthos
MAA = macroalgae
EB MA = Epibenthic macrofauna, includes all visibile large fauna of hard substrates and the larger fauna of the soft sediments that does not burrow into them (ascidians, giant isopods, predator nemerteans, sea stars, sea urchins etc..)
IB MA = inbenthic macrofauna as mostly composed by smaller metazoans that can superficially or more extensively burrow into the sediments (polychaetes, cumaceans, small amphipods, yoldias etc.) and which can be assessed in their abundance by van veen
IB ME = inbenthic meiofauna
POC/DOC = here all the forms of the Organic Carbon present in either dissolved (smaller than 0.45 µm) or particulate (larger than that) fashion and which can be represented by e.g. metabolites (DOC) or faecal pellets (POC)
DETRITUS = all the dead forms of carbon present in the bay. Often these forms are first POC or DOC which is not remnineralised through the microbial loop (RED ARROWS), or it can be just dead organisms that don’t get eaten or recycled in any other fashion or refractory compounds from primary production remineralisation
CO2 = as released during the process of POC and DOC remineralisation by PRO here re-entering the cycle via the primary producers