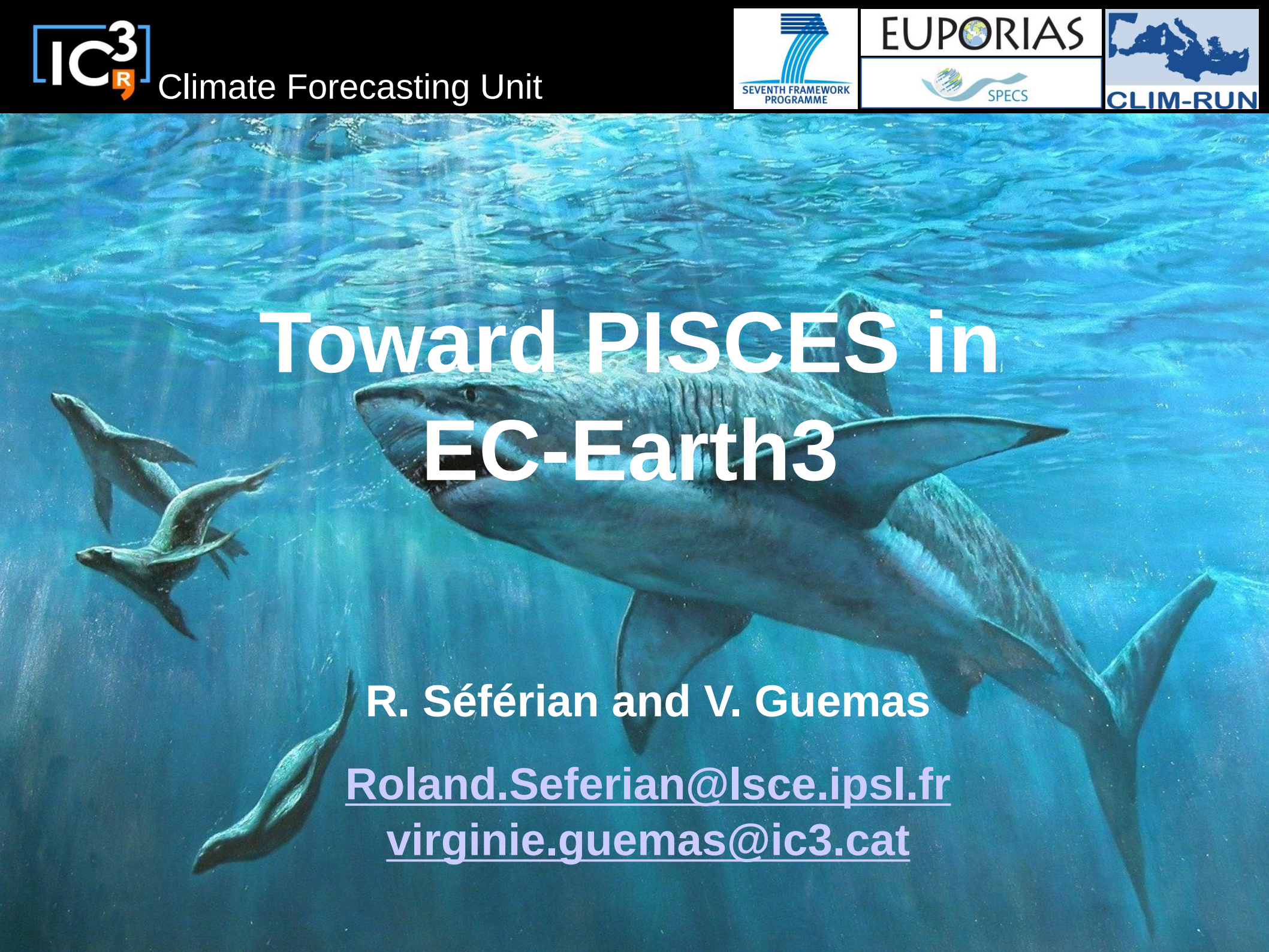

Climate Forecasting Unit

# Toward PISCES in EC-Earth3


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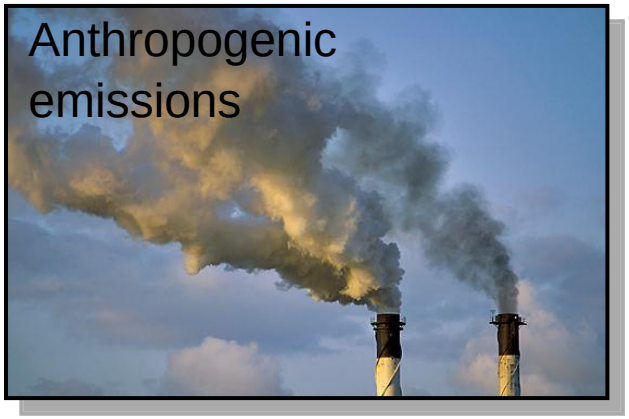
# The global carbon budget (2002-2012 average)

8.3±0.4 PgC/yr 90%



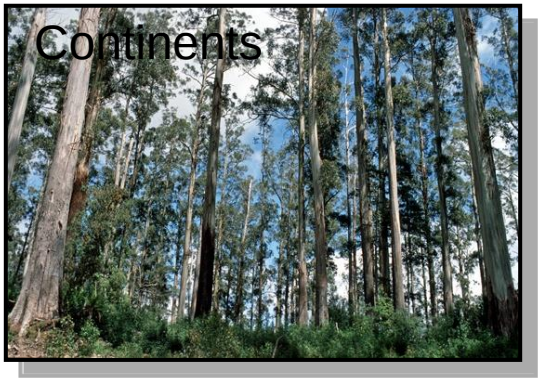

1.0±0.5 PgC/yr 10%

+

4.3±0.1 PgC/yr
46%

2.6±0.8 PgC/yr
28%

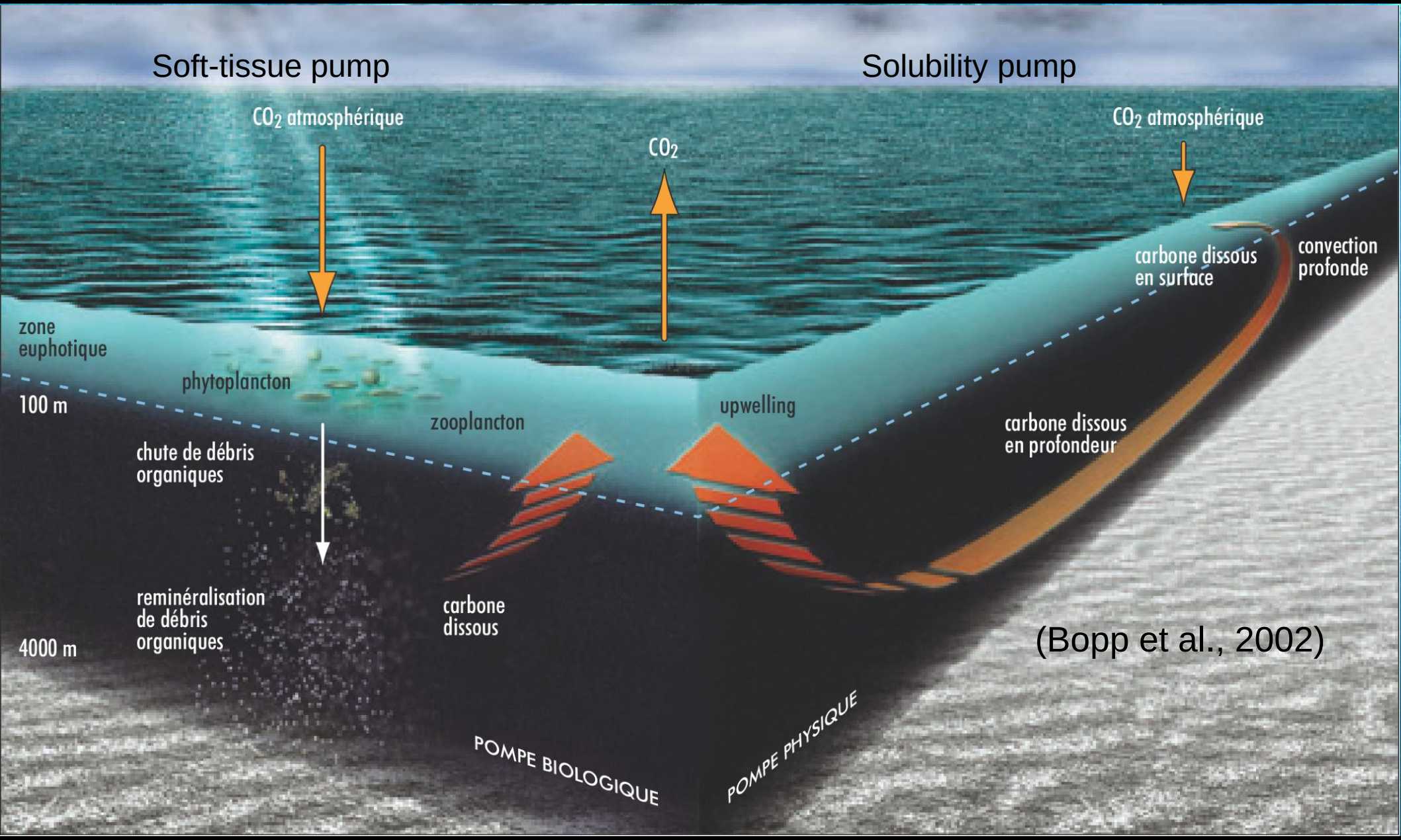
Calculated as the residual
of all other flux components



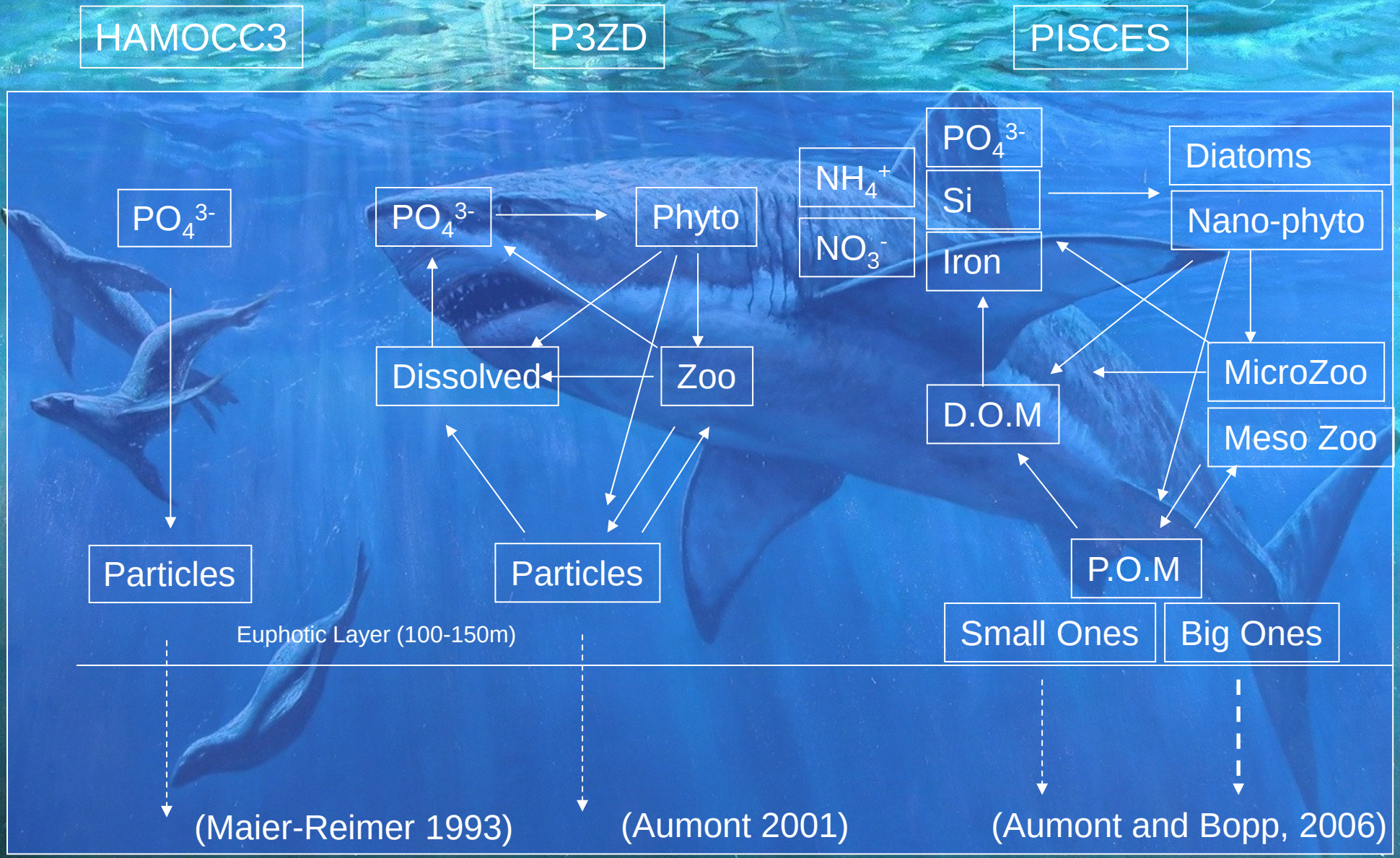

26%
2.5±0.5 PgC/yr

Le Quéré et al., 2013, GCP 2012

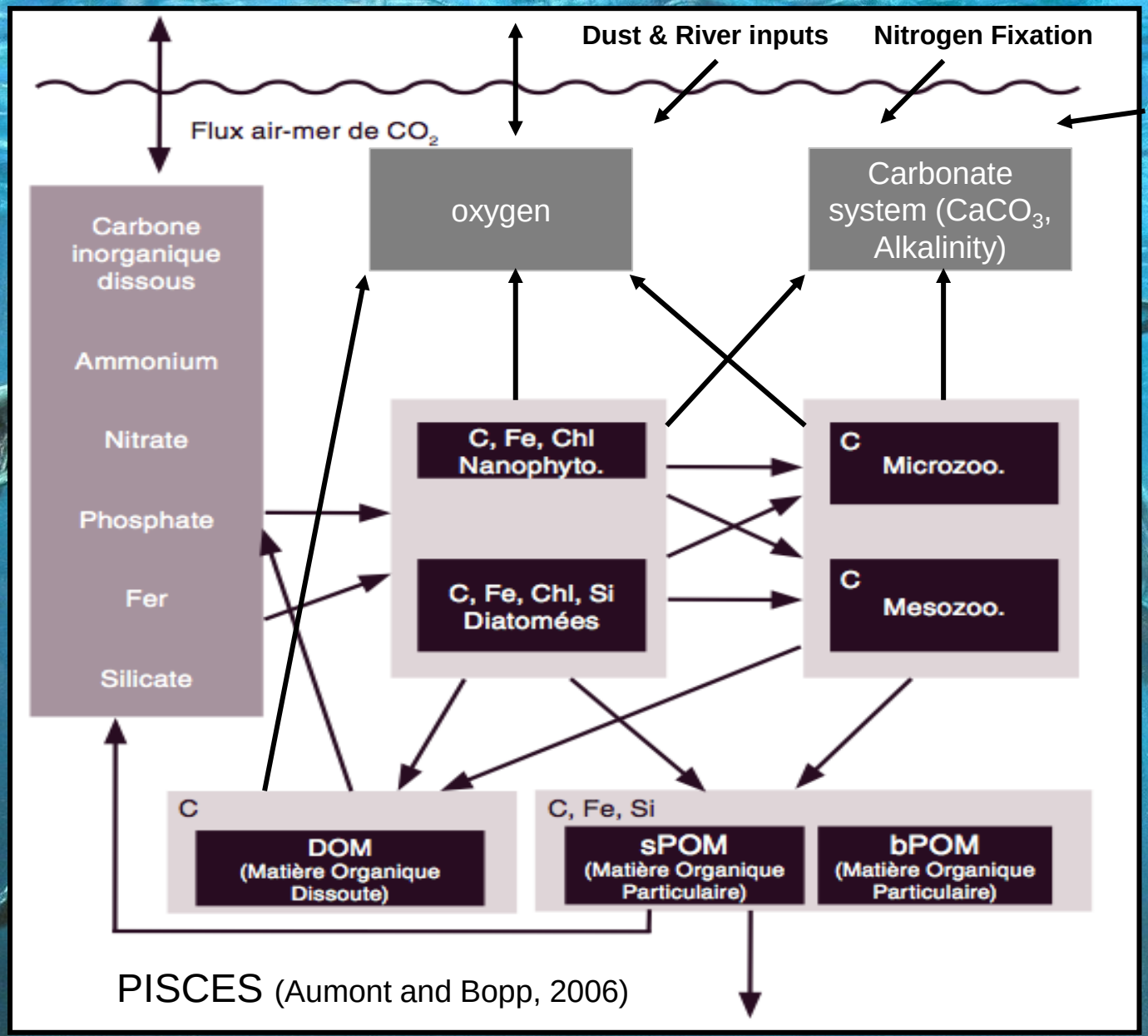
# Mechanisms driving the ocean carbon cycle:



# Modeling the ocean biogeochemistry:

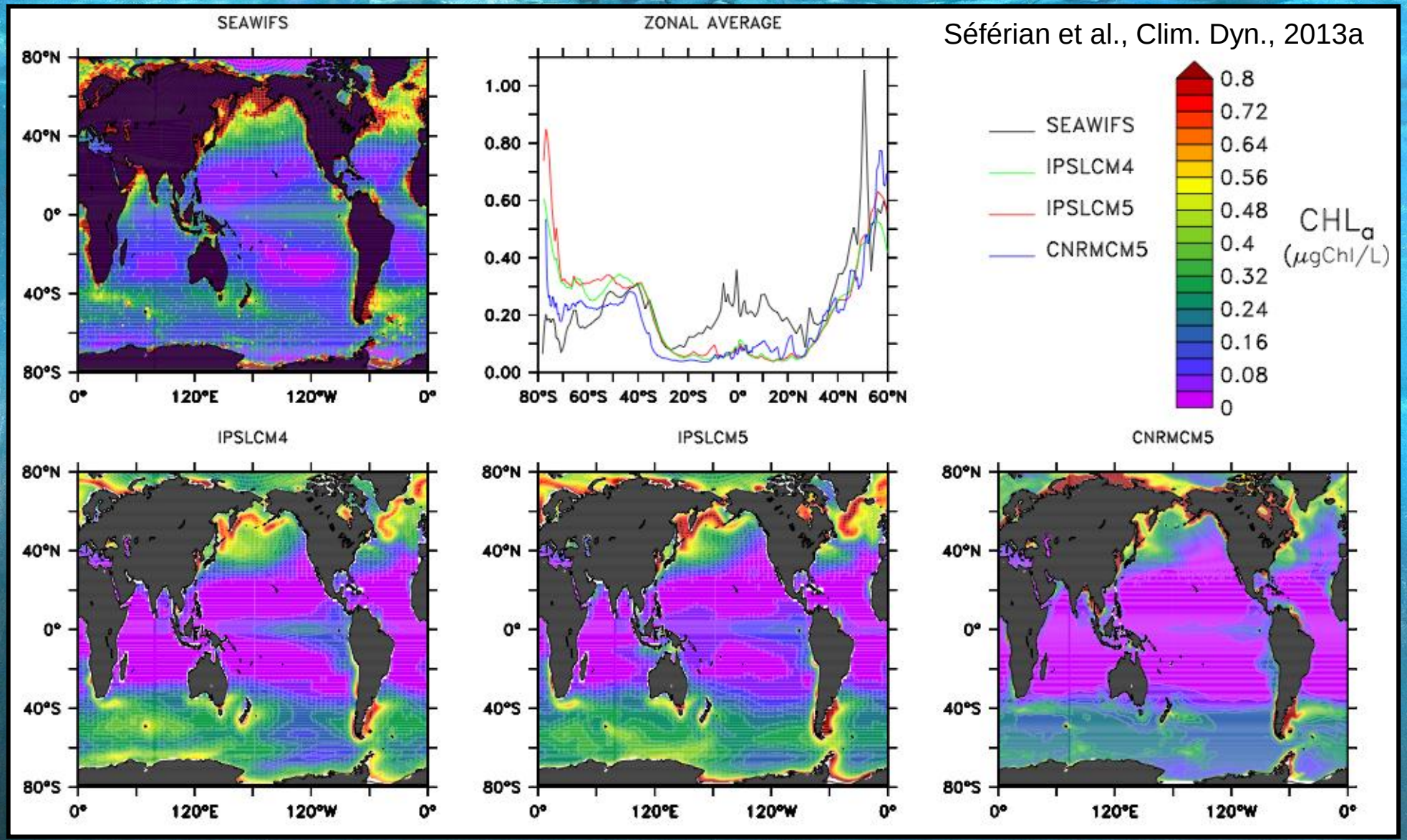


# PISCES as it is in NEMO



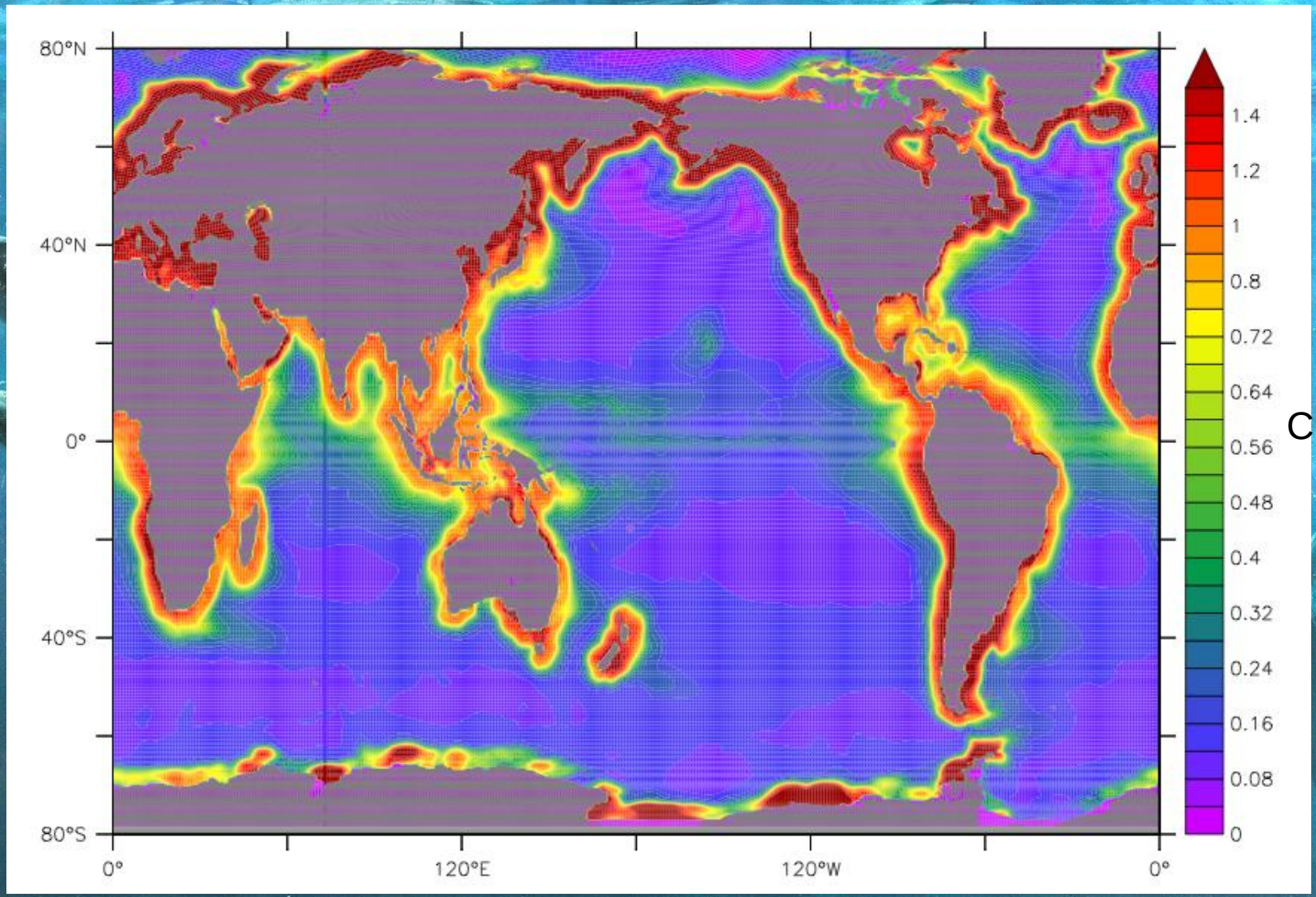

PISCES (Aumont and Bopp, 2006)

# Surface chlorophyll of three ESM compared to satellite-derived observations



# Very preliminary results: PISCES-Ec-Earth3.0.1

(One year run ! Large drift around the continents)



# *A complete validation for the next EC-Earth meeting*

## Thanks a lot for you attention

**Any question to be directed to:**

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