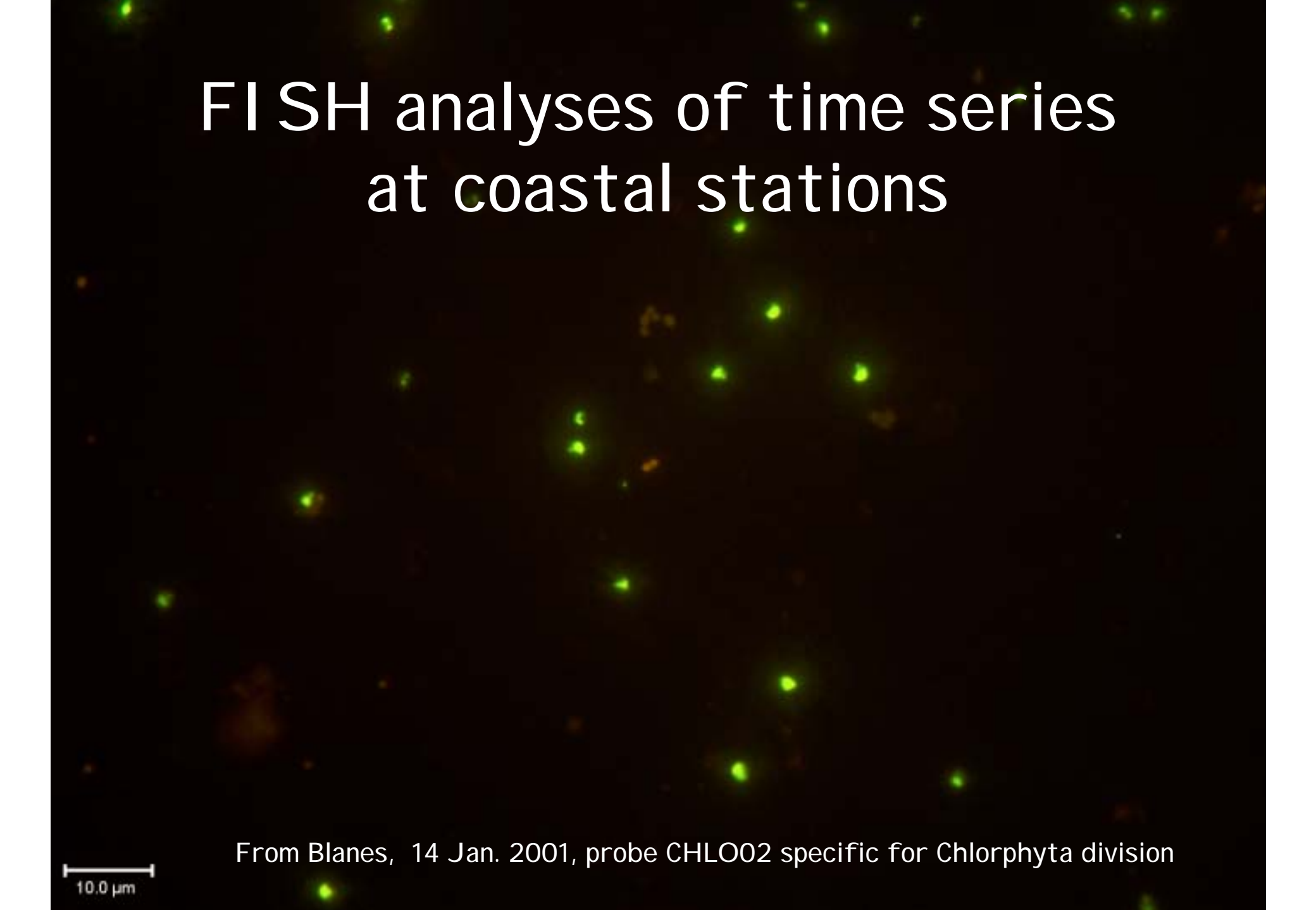


# FISH analyses of time series at coastal stations



10.0  $\mu\text{m}$

From Blanes, 14 Jan. 2001, probe CHLO02 specific for Chlorophyta division

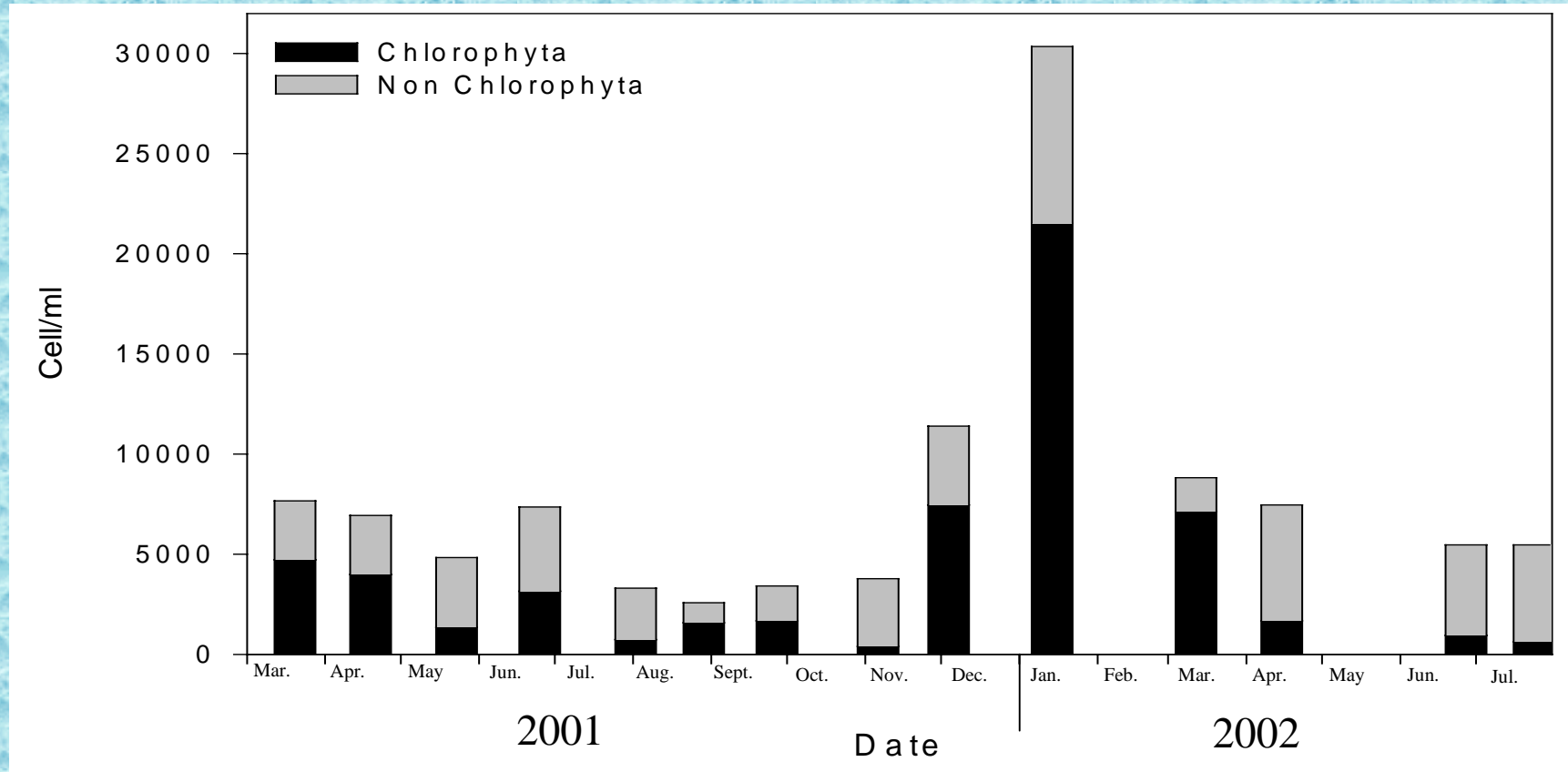
# Blanes

- Mediterranean Sea
- Coastal sampling site
- Sampling



- once a month
- since March 2001 until July 2002
- 20 ml filtered

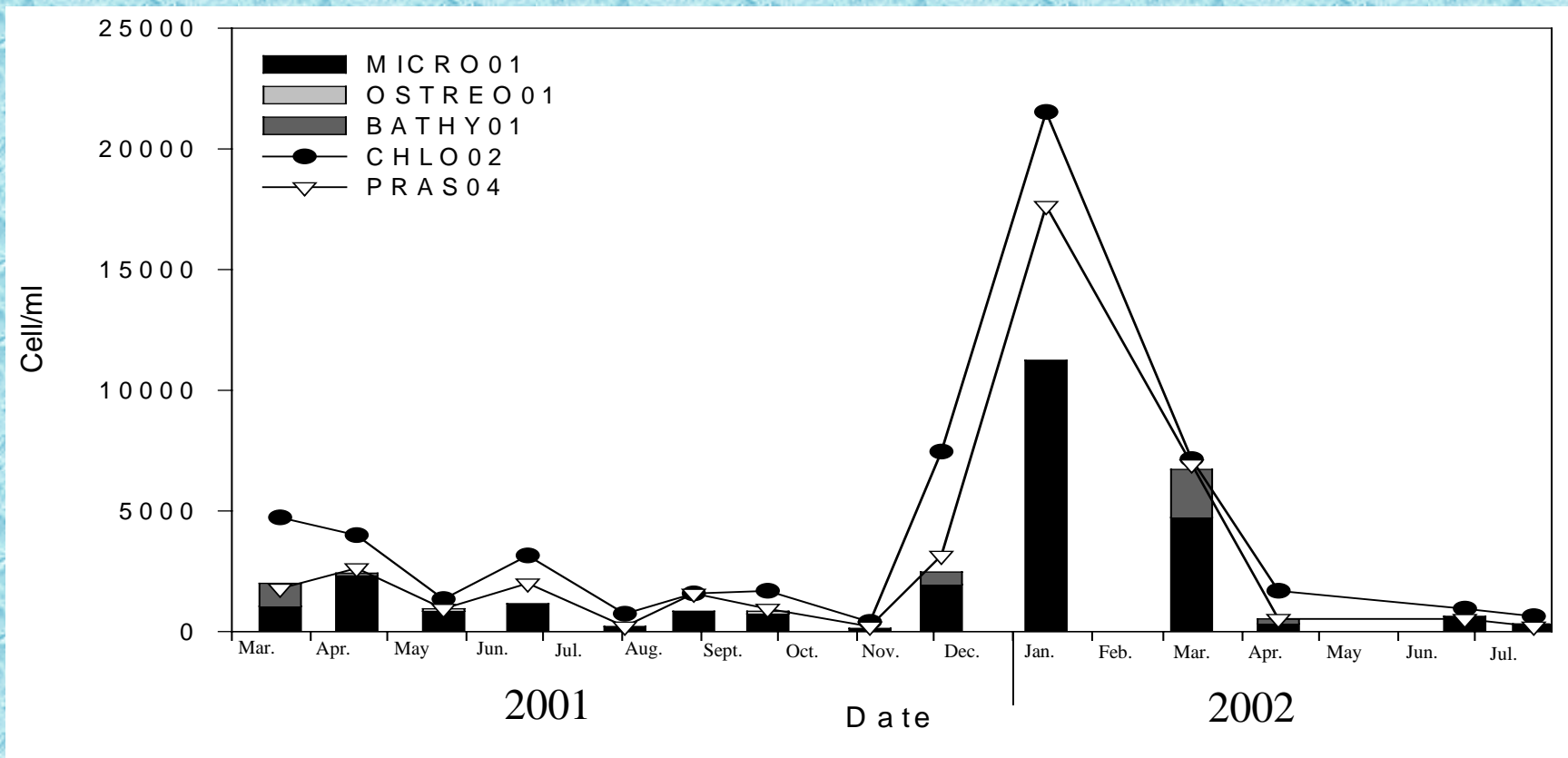
# General probes



Non Chlorophyta were estimated by difference between mix of general probes (EUK1209R+CHLO01+NCHLO01) and probe CHLO02

Chlorophyta is dominant most of the time

# Chlorophyta

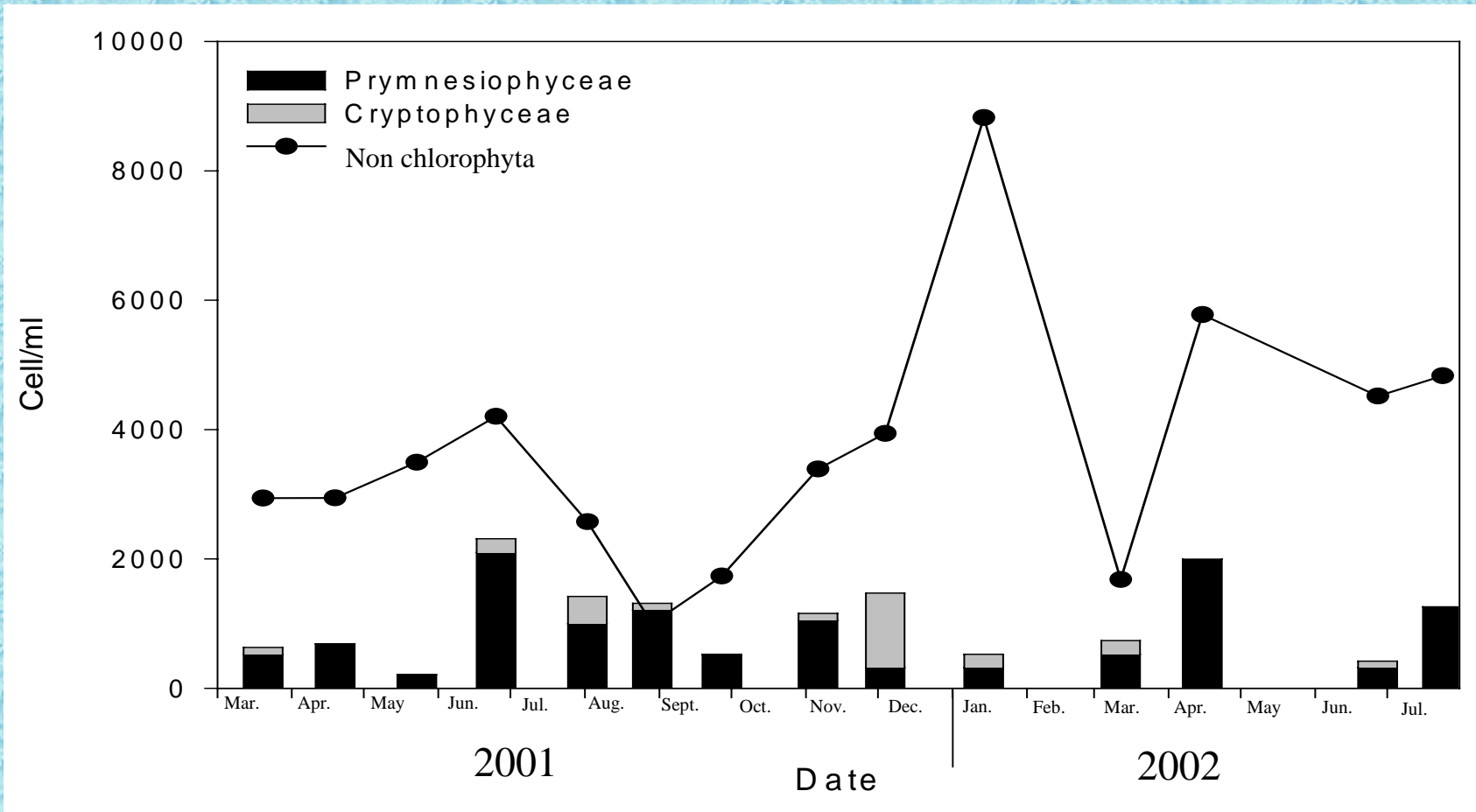


Mamiellales is the most abundant order

*Micromonas* is the dominant genus (average 24% of picoeukaryotes, range 3%-54%)

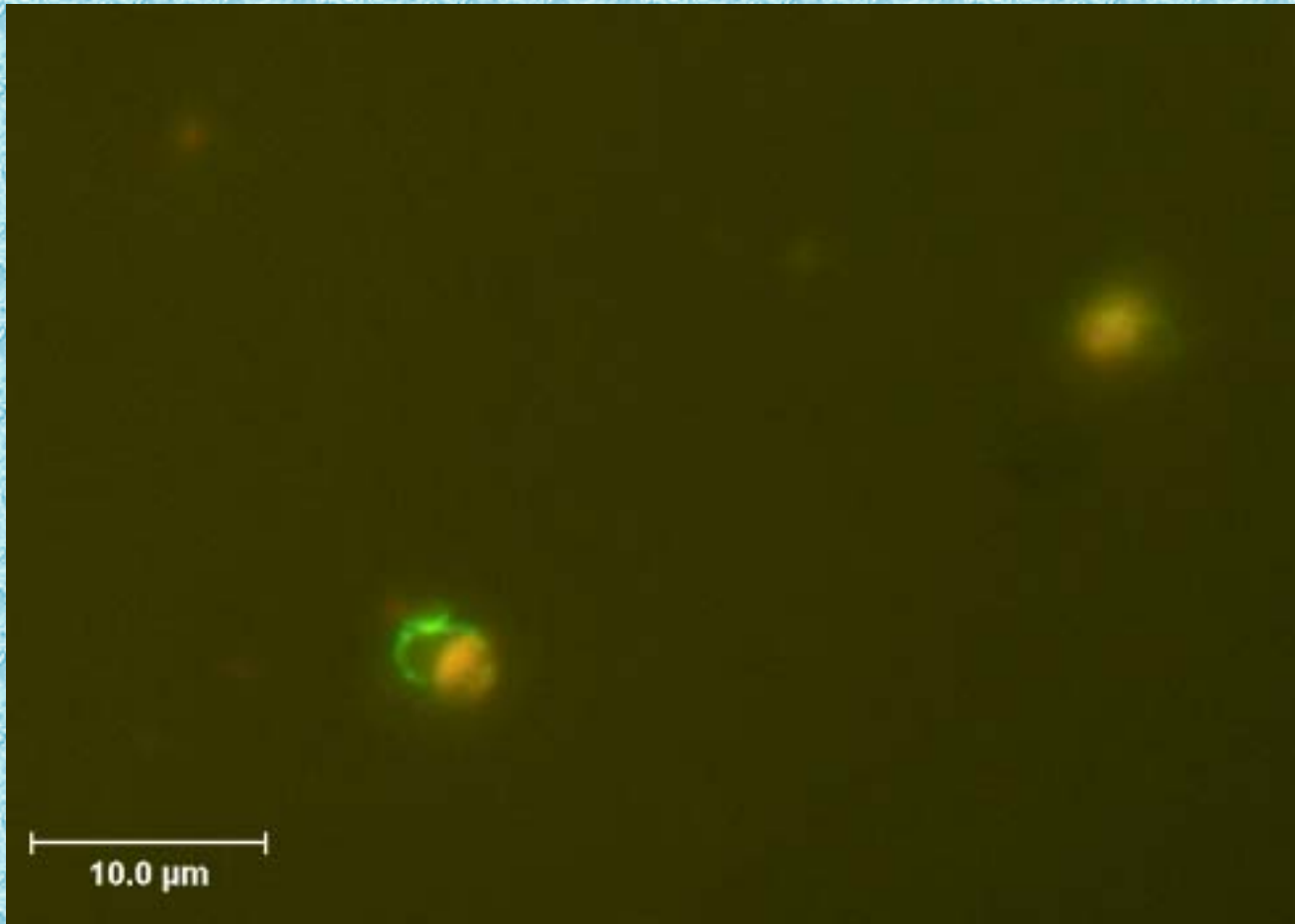
Sporadic proliferation of Bathycoccus

# Non Chlorophyta



Prymnesiophyceae and Cryptophyceae (in December) can represent a non-negligible part of the non Chlorophyta organisms

# BL010802 CRYPTO13



# ASTAN

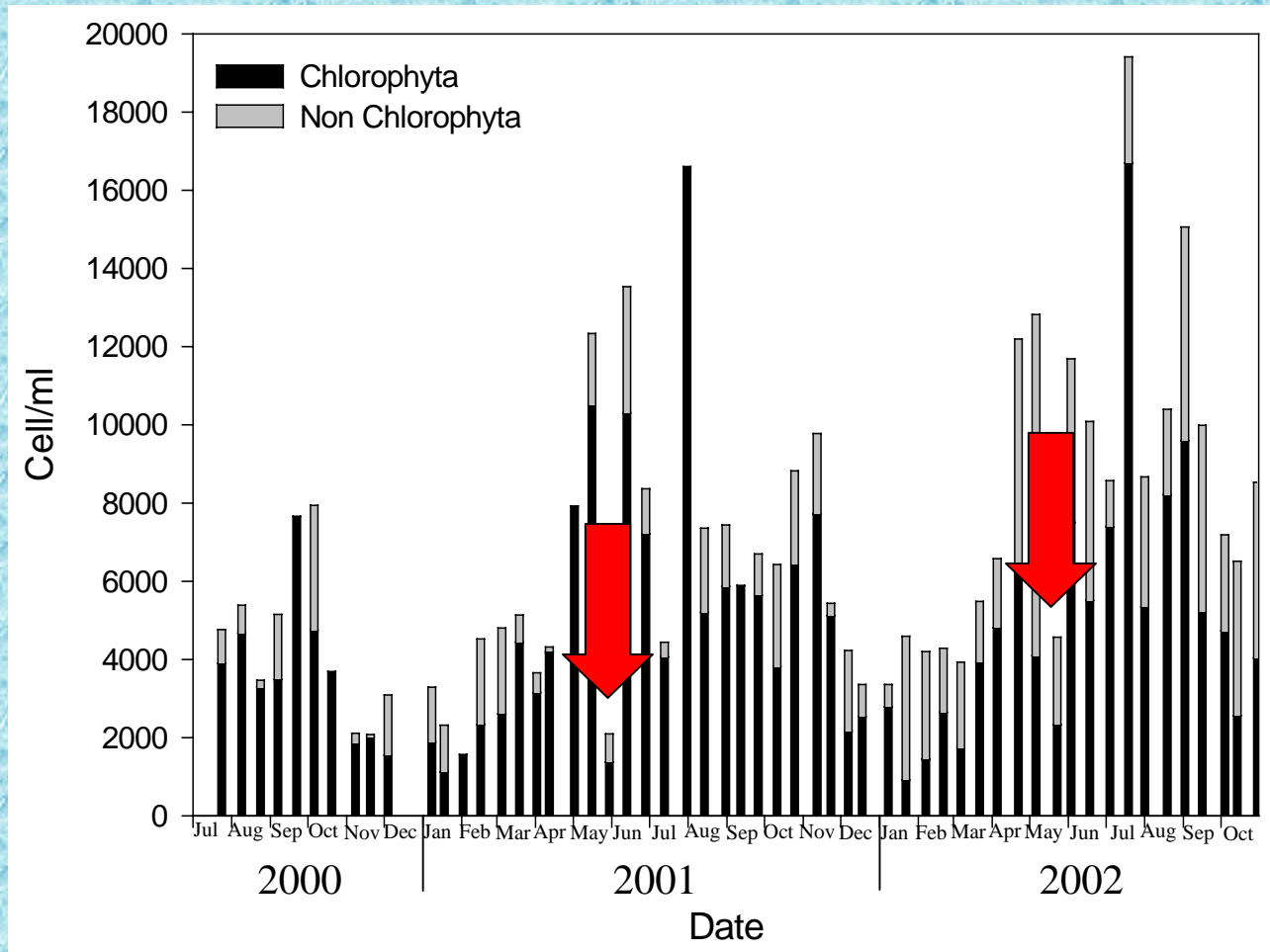
- English Channel
- Coastal sampling site
- Sampling



- Twice a month
- since March 2000 until October 2002
- 100 ml filtered



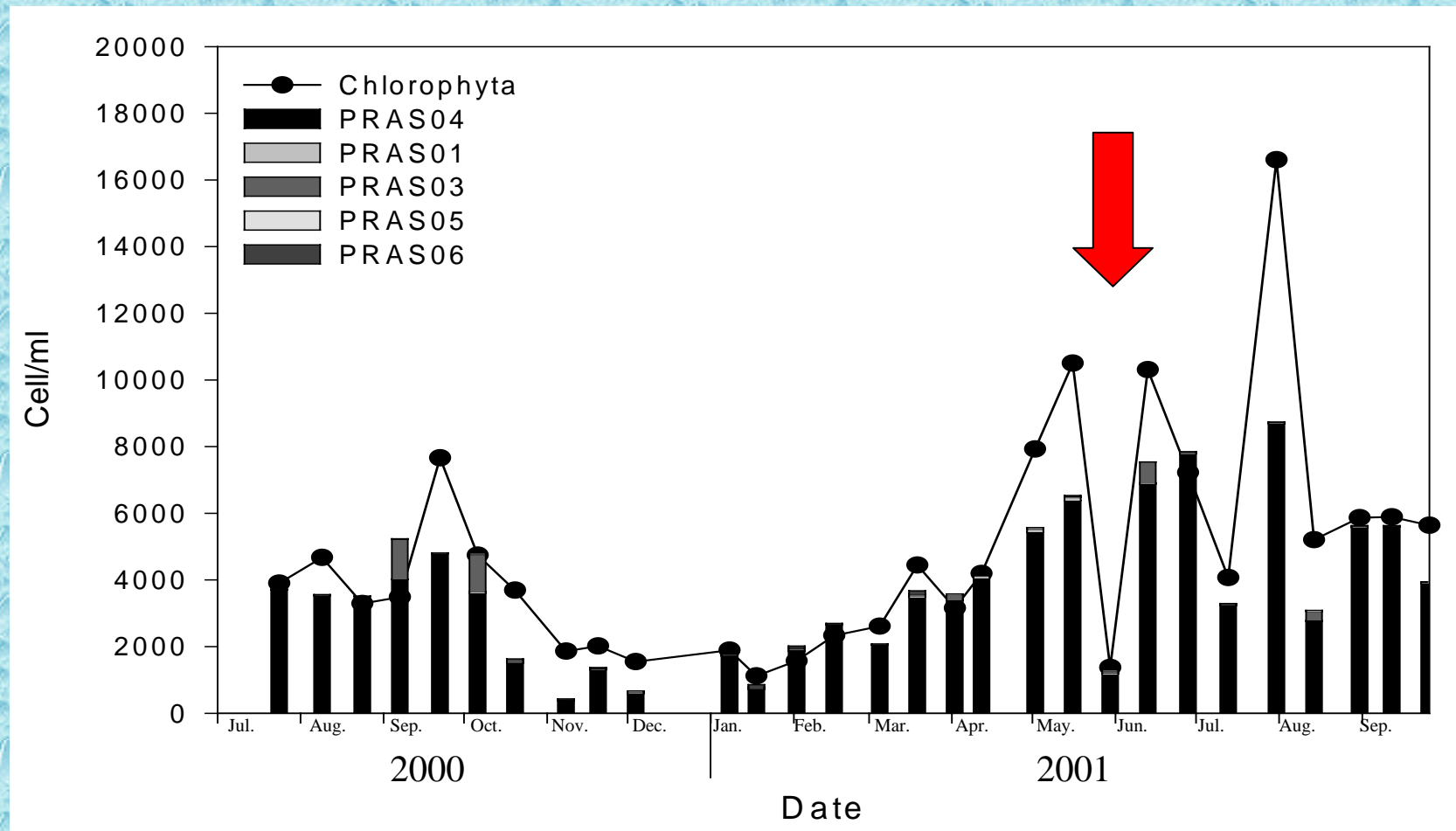
# General probes



Chlorophyta organisms are the most abundant, Peak in July-August

Sharp decrease at the end of May

# Chlorophyta

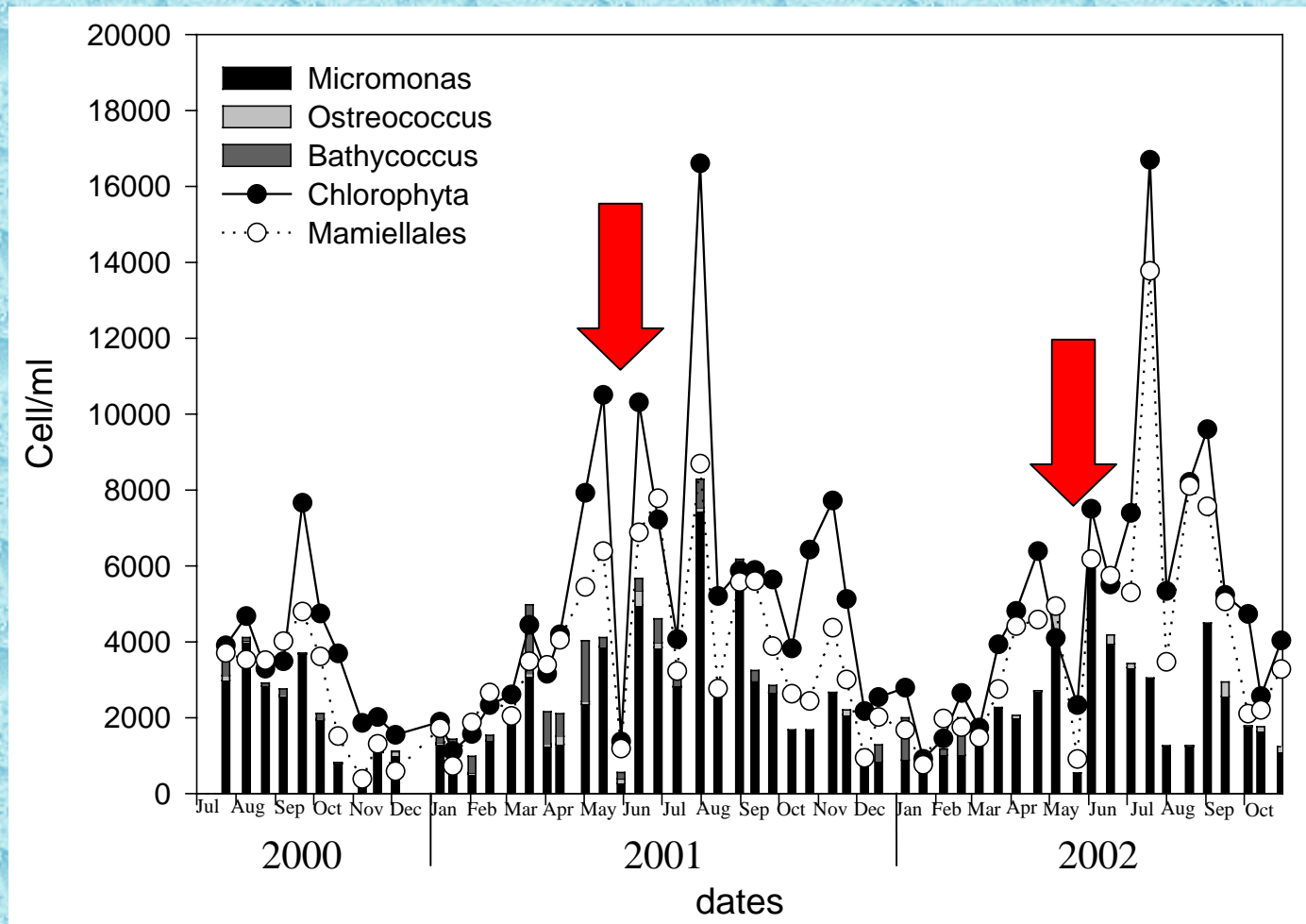


Mamiellales (PRAS04) are dominating

Prasinococcales (PRAS03) occurred sporadically

Other clades were non significantly represented

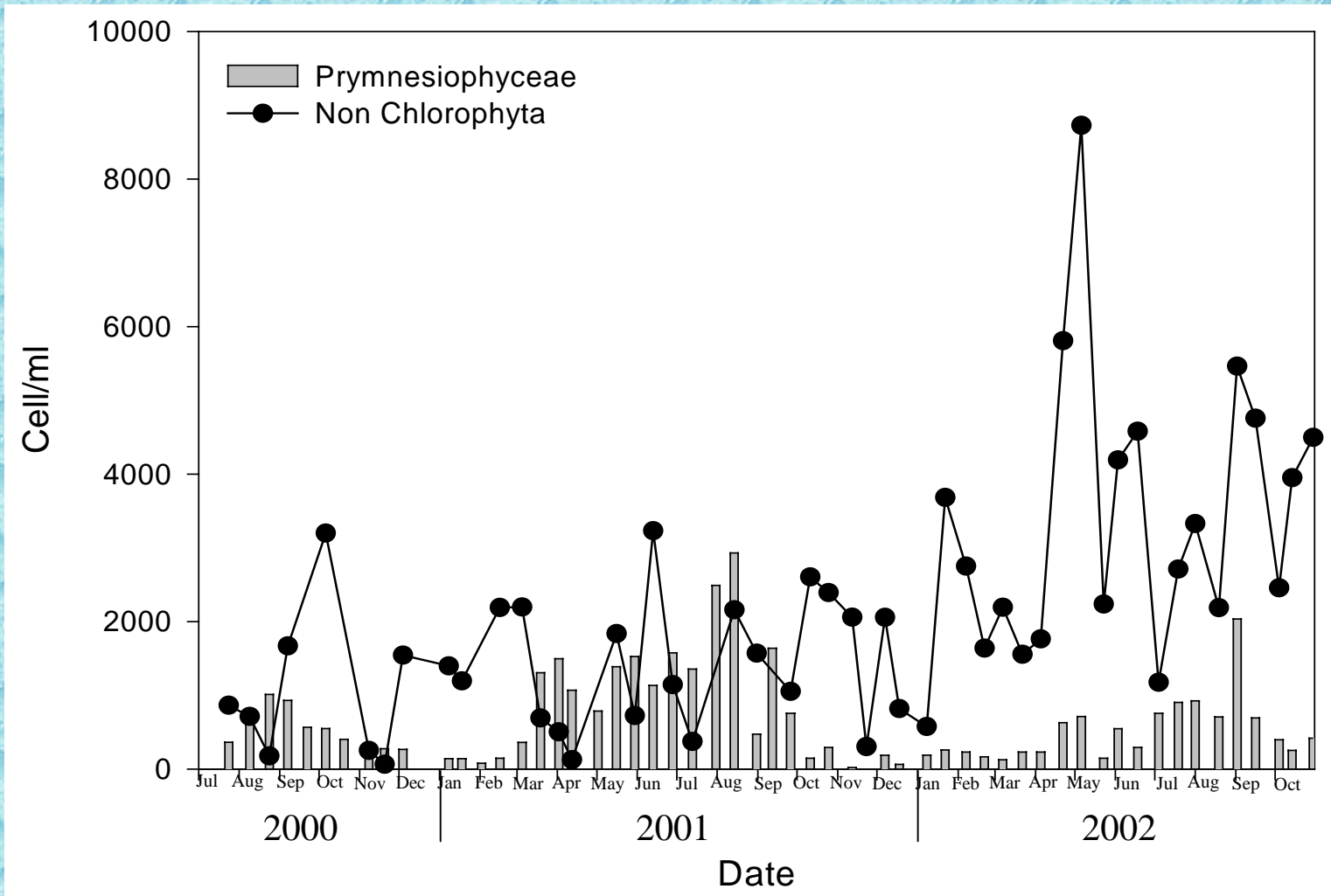
# Chlorophyta



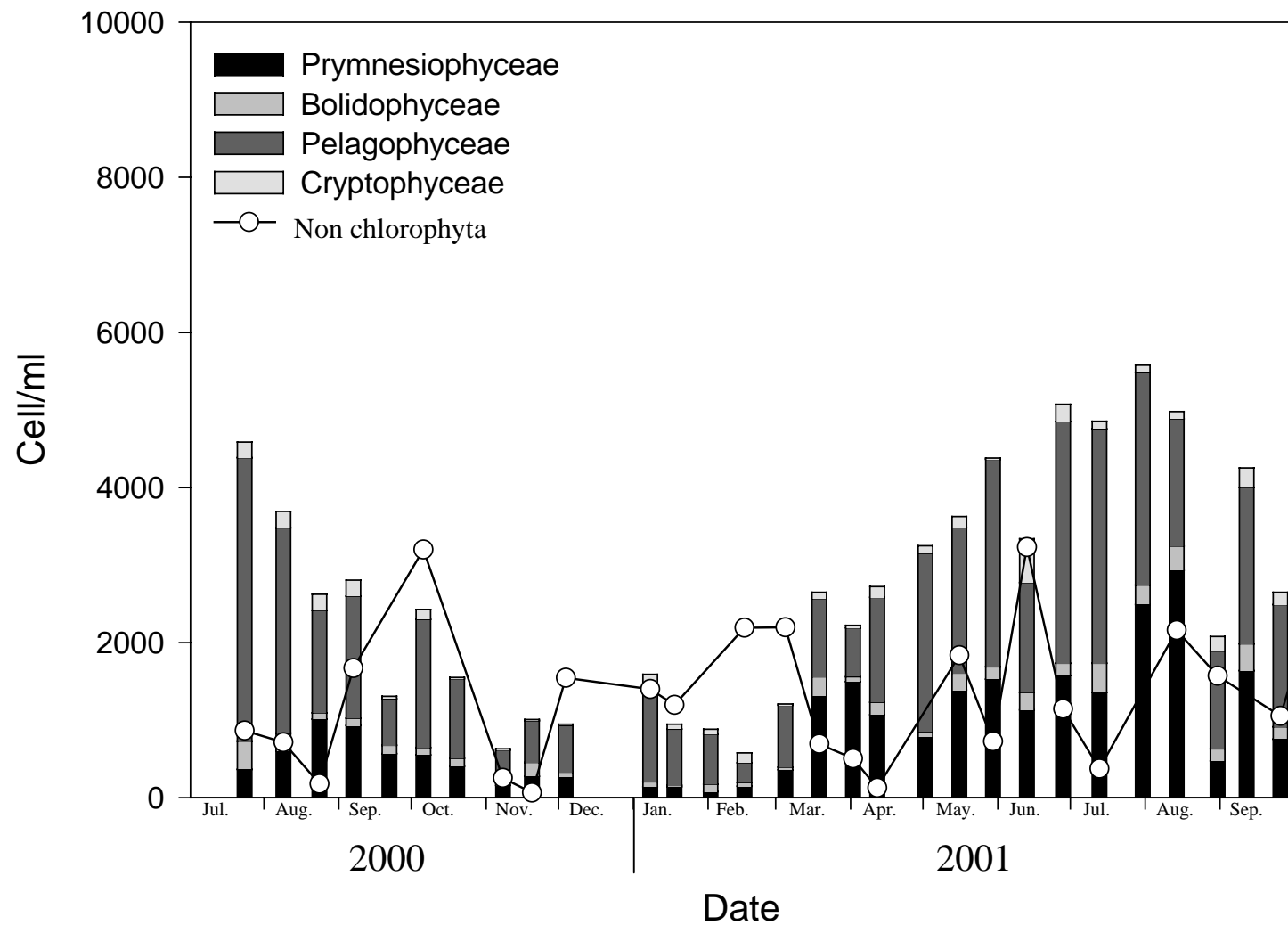
*Micromonas* is the dominant genus (average 35% of picoeukaryotes, range 12%-82%)

Sporadic proliferation of *Bathycoccus* and *Ostreococcus*

# Non Chlorophyta

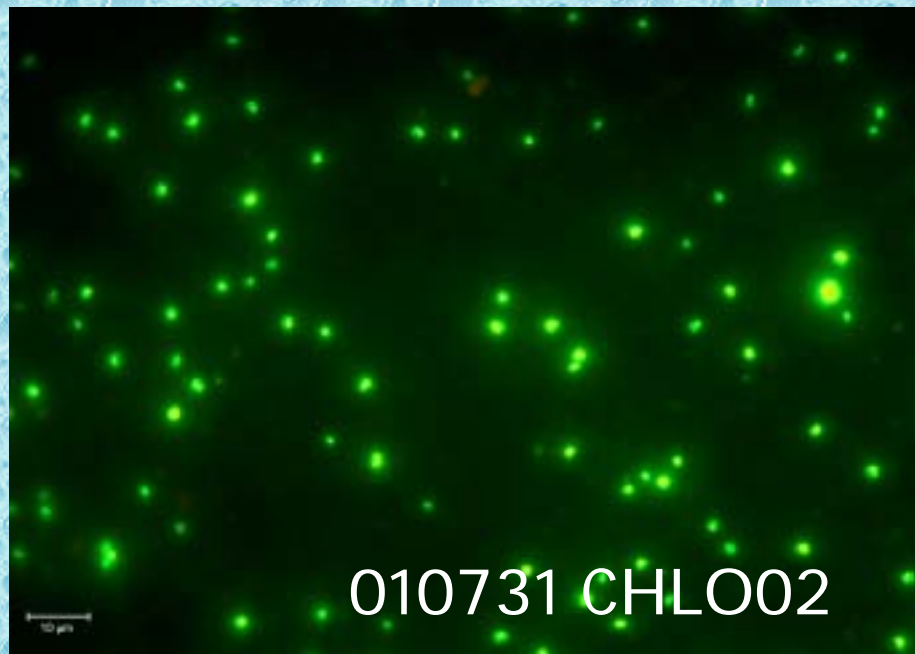


Prymnesiophyceae on the whole time series

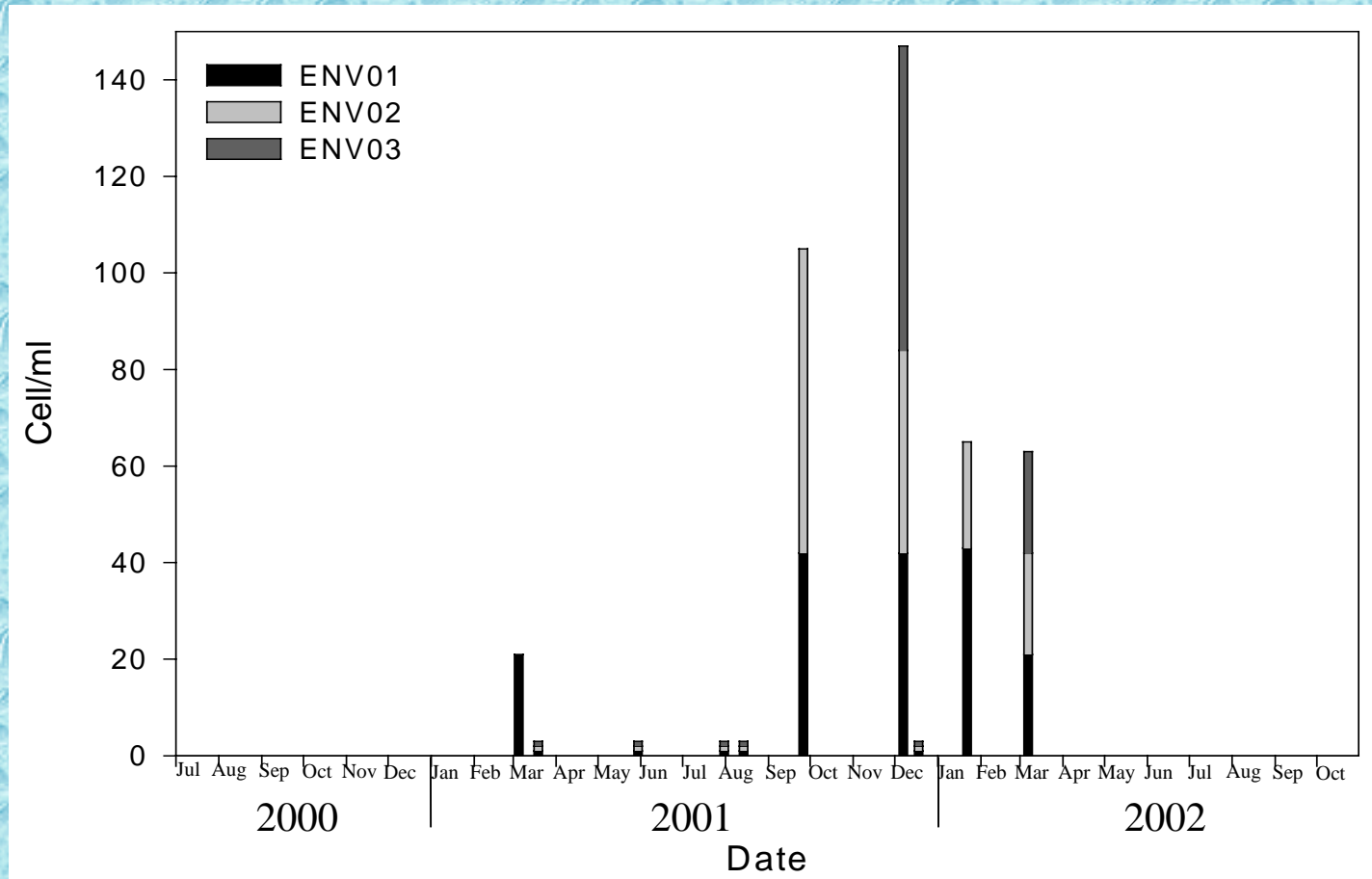


Pelagophyceae are probably over estimated

Prymnesiophyceae appears abundant within the non Chlorophyta organisms



# New red group



ENV01, ENV02 and ENV03 corresponds to the three clades of the main tree in the ARB software

We did not detect cells in summer

010926 ENV02



010926 ENV02



10.0  $\mu\text{m}$

# Dourduff

- English Channel
- Estuarine sampling site
- Sampling

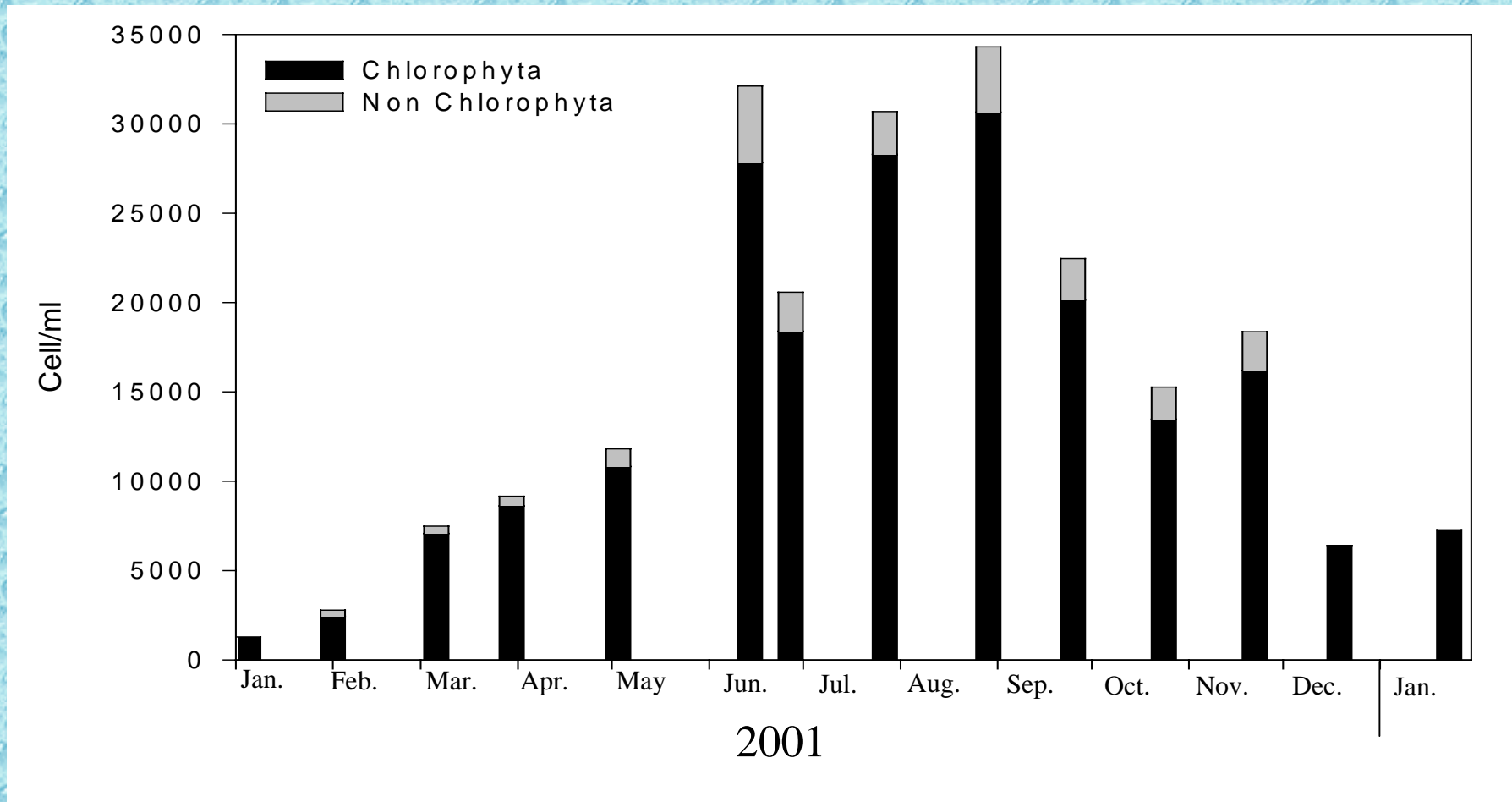
- Once a month

- since January 2001 until December 2002

- 100 ml filtered



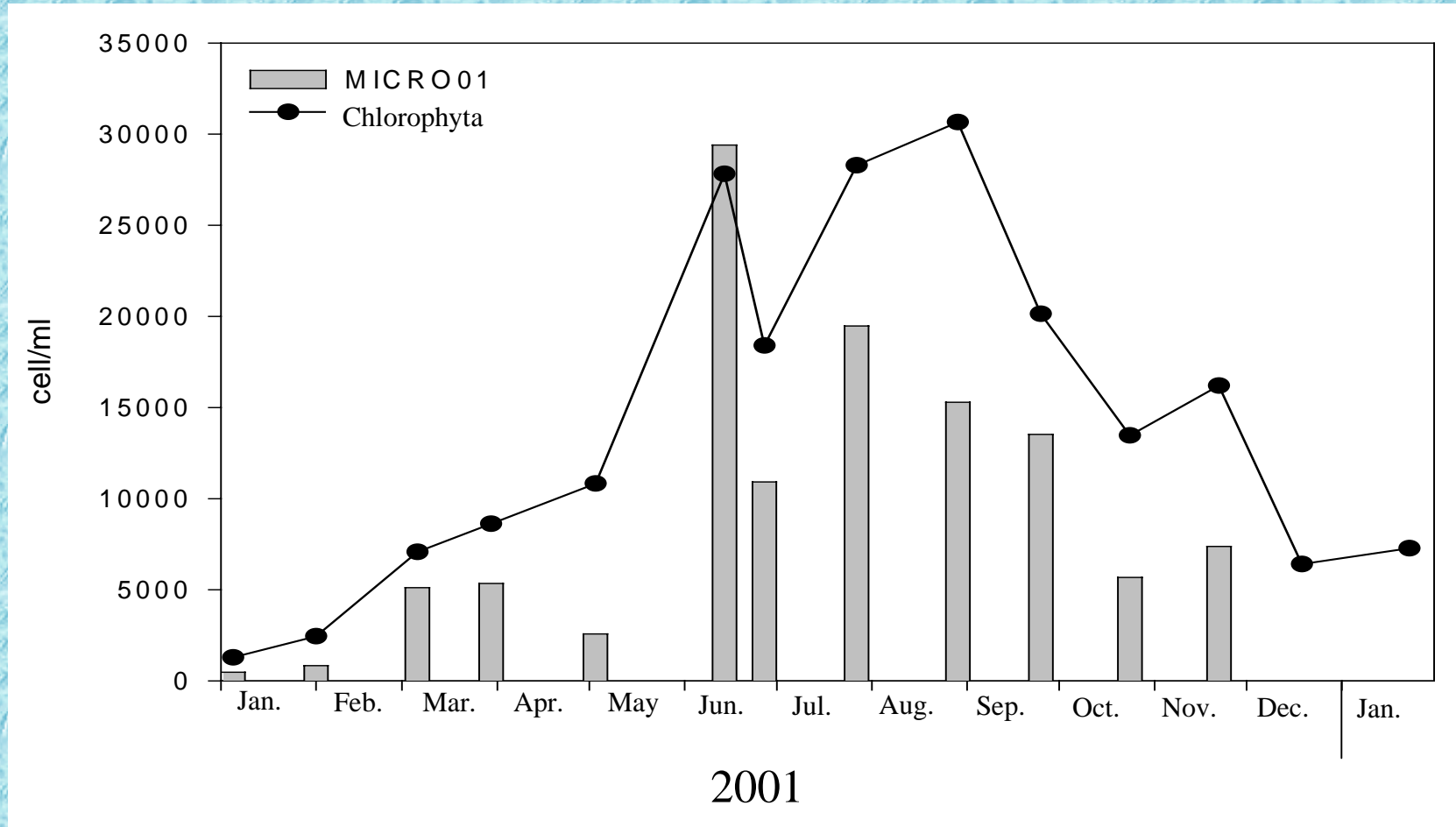
# General probes



Non chlorophyta were enumerated with the probe NCHLO02

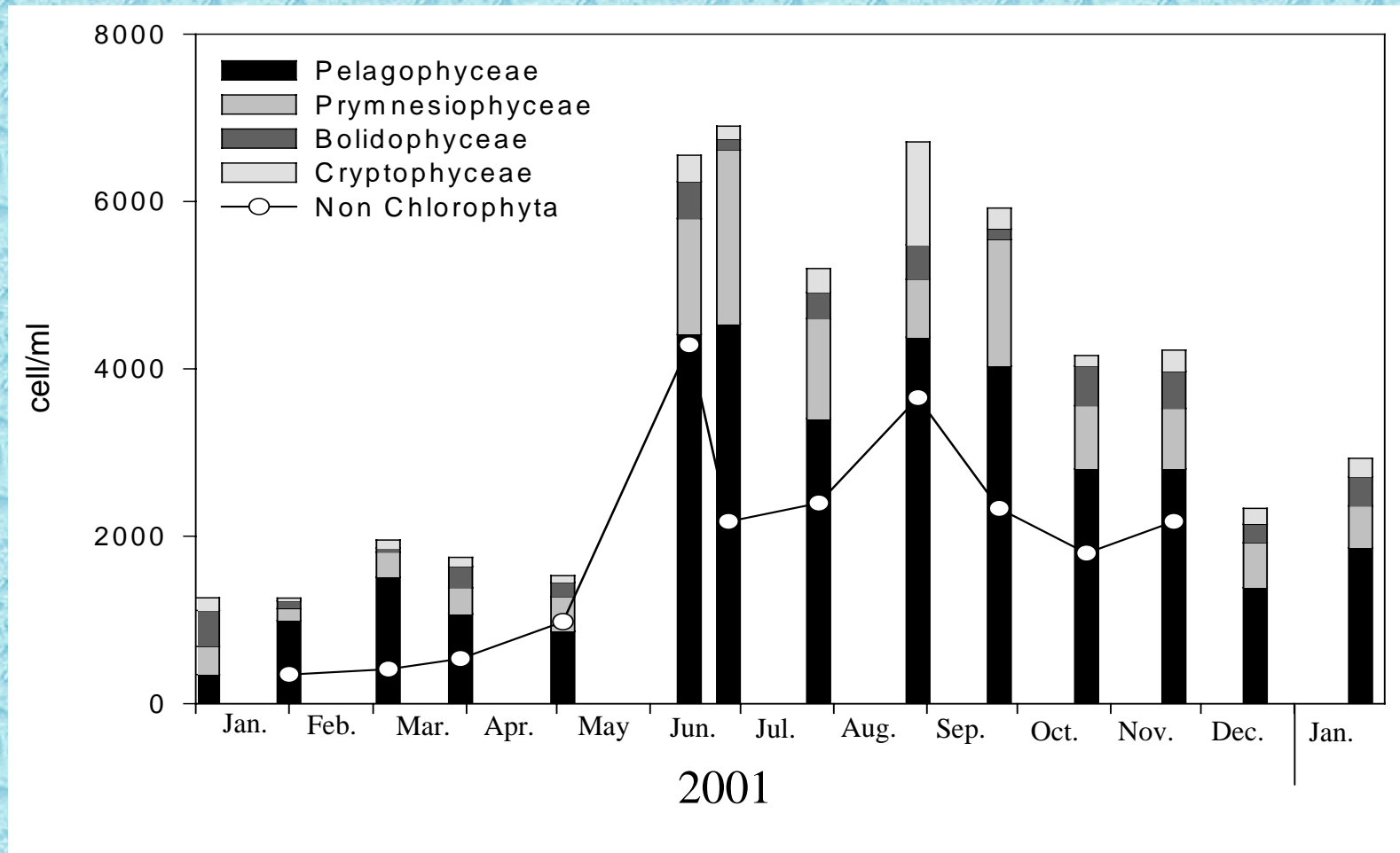
Chlorophyta were dominant

# Chlorophyta



*Micromonas* is the dominant genus (average 61% of picoeukaryotes, range 22%-92%)

# Non Chlorophyta



Pelagophyceae are probably over estimated

Bolidophyceae and cryptophyceae are always present at a significant abundance

	<b>Roscoff (ASTAN)</b>	<b>Blanes</b>	<b>Roscoff (Dourduff)</b>
Max of picoeukaryotes (cell/ml)	19 406	30 348	34 307
Date of the peak	19/07/02	14/01/02	29/08/01
Max of <i>Micromonas</i> (cell/ml)	7 450	11 236	29 398
Date of the peak	31/07/01	14/01/02	14/06/01
% <i>Micromonas</i> in picoeukaryotic community	<b>35%</b>	<b>24%</b>	<b>61%</b>

# Conclusion

- Chlorophyta and more precisely *Micromonas* genus is dominating at the three sampling site
- Interesting sharp decrease at the end of May off Roscoff (Also observed in clone libraries, DGGE, HPLC)
- Peak of *Micromonas* occurred in winter at Blanes and in summer at Roscoff
- percentage of *Micromonas* cells seems increasing with the nutrient concentration (Blanes-ASTAN-Dourduff)

# *Micromonas* at the different sampling site

