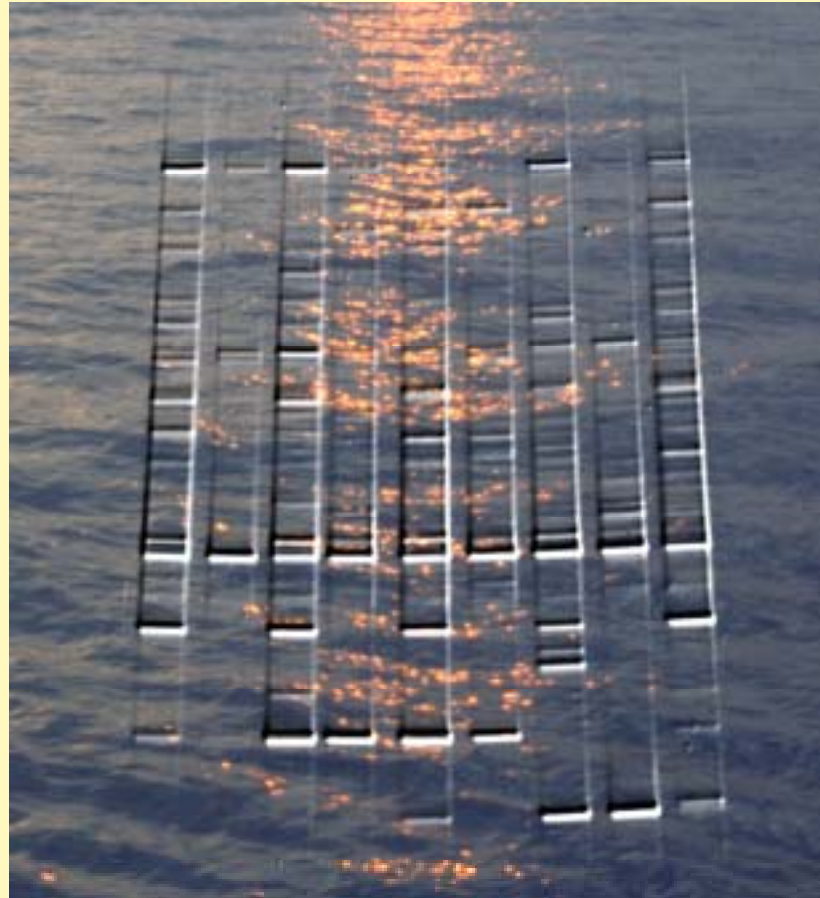


# DGGE analysis of time series at coastal stations

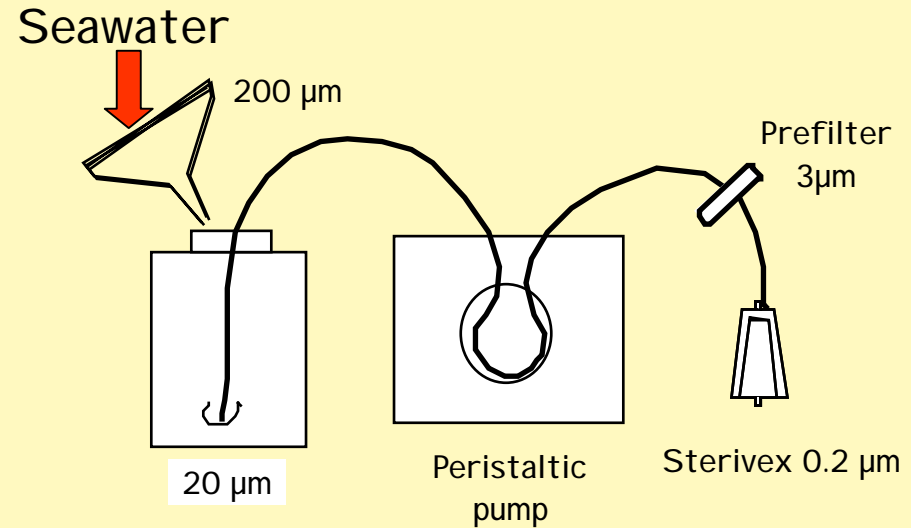
Oslo-March 2003. Last PI CODIV Workshop  
Results from the ICM group



# Processing of samples



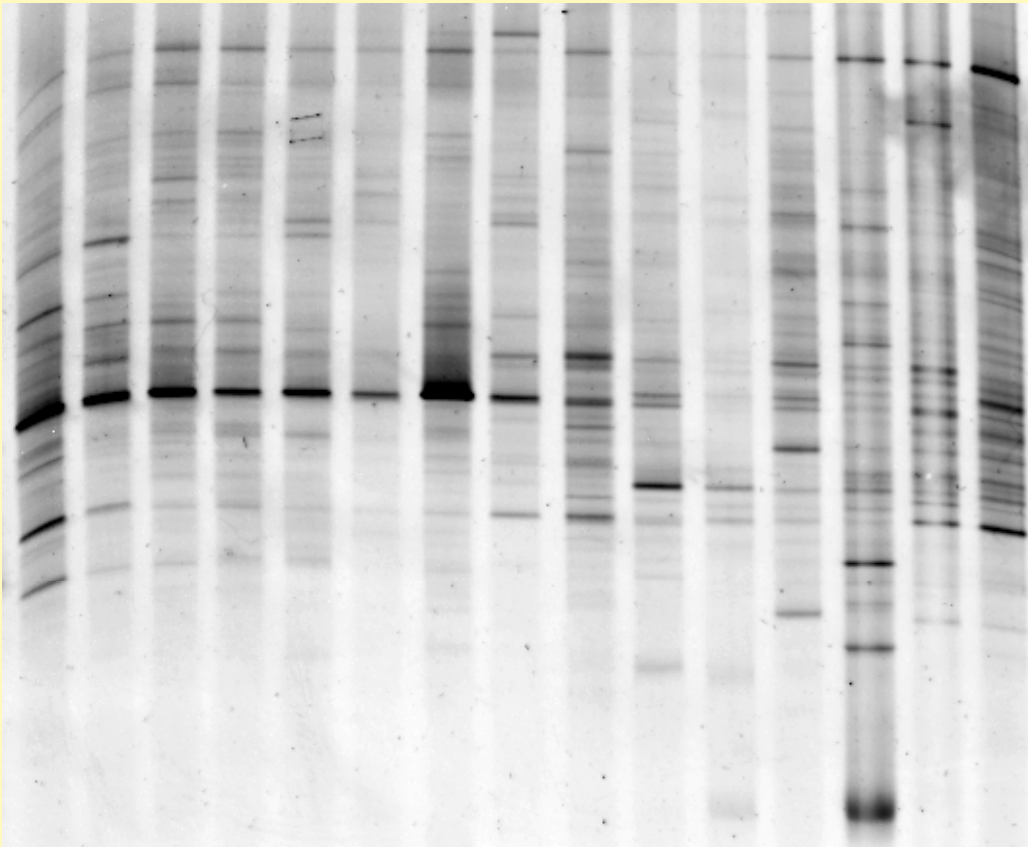
Blanes Bay



- Monthly sampling between 20 March 2001 and 22 May 2002
- DNA extraction
- PCR with primers Euk1A and Euk516r-GC (Díez et al. 2001)
- DGGE electrophoresis
- Image analysis of DGGE gels

# Seasonal cycle during 1998

Jan 27   Feb 5 25   Mar 3 11 18 26   Apr 29   Jun 3   Jul 2 29   Sep 3   Oct 9   Nov 4   Dec 1



## Picoeukaryotes



Winter/Spring



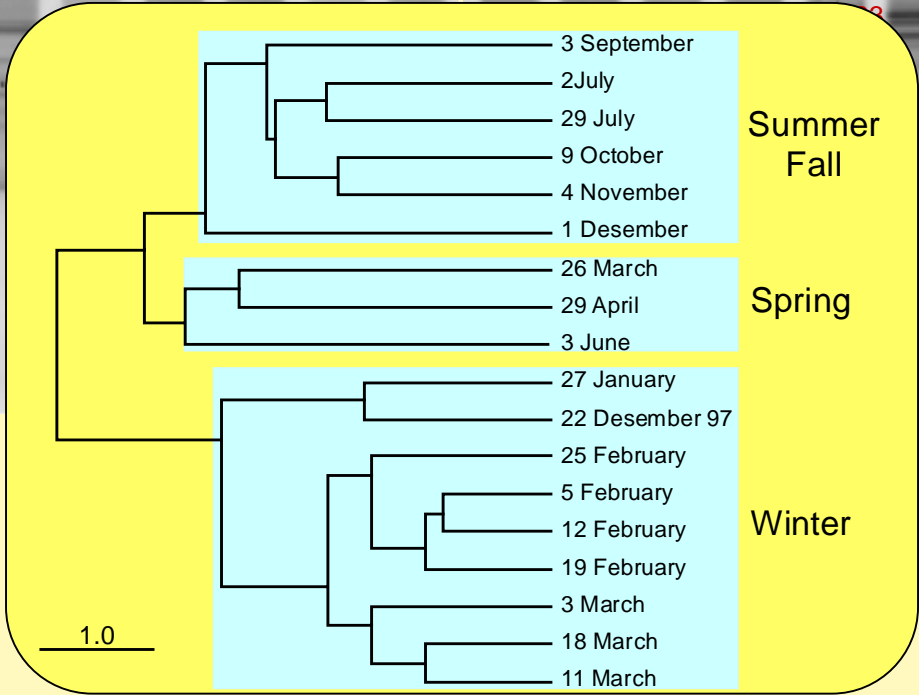
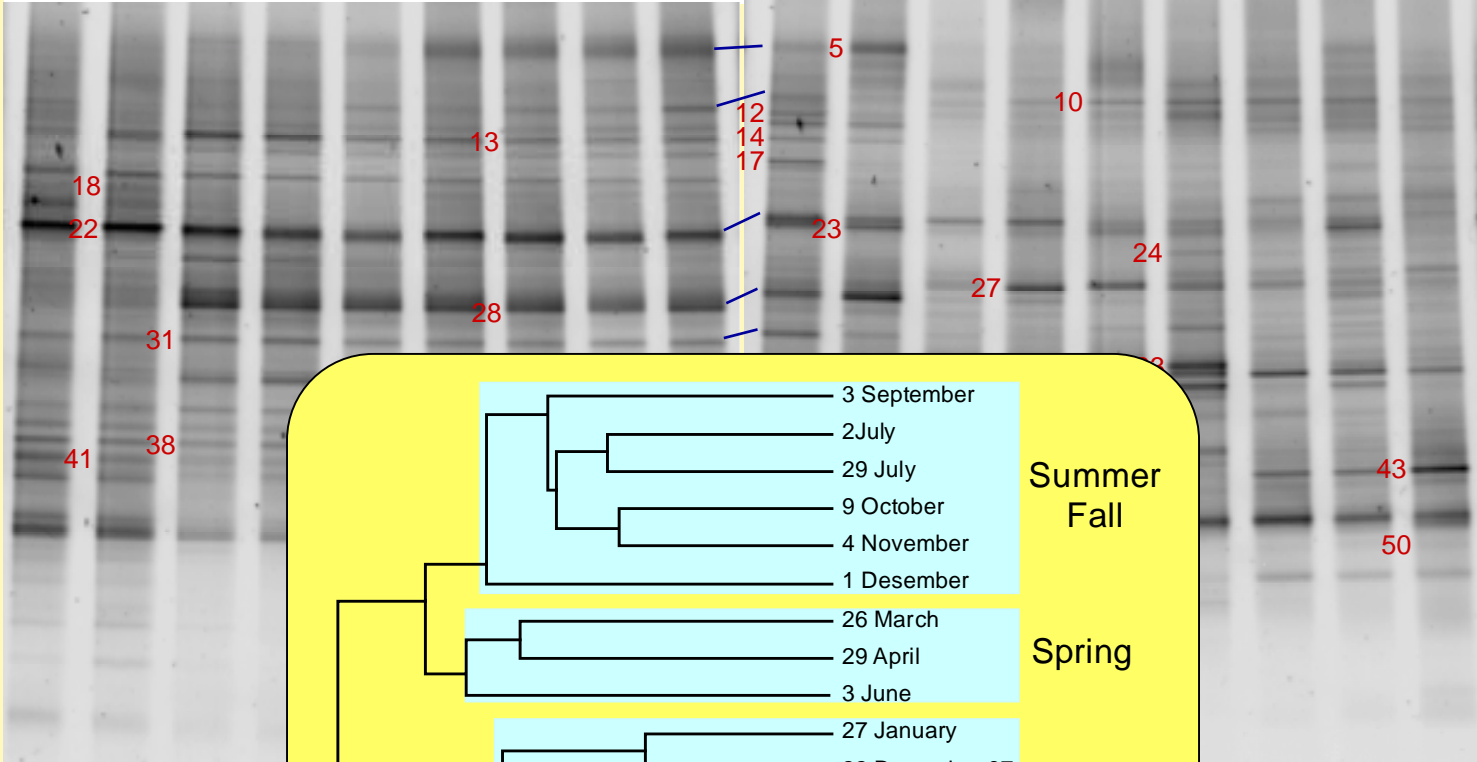
Summer/Fall

Fraction 0.2 - 5  $\mu$ m

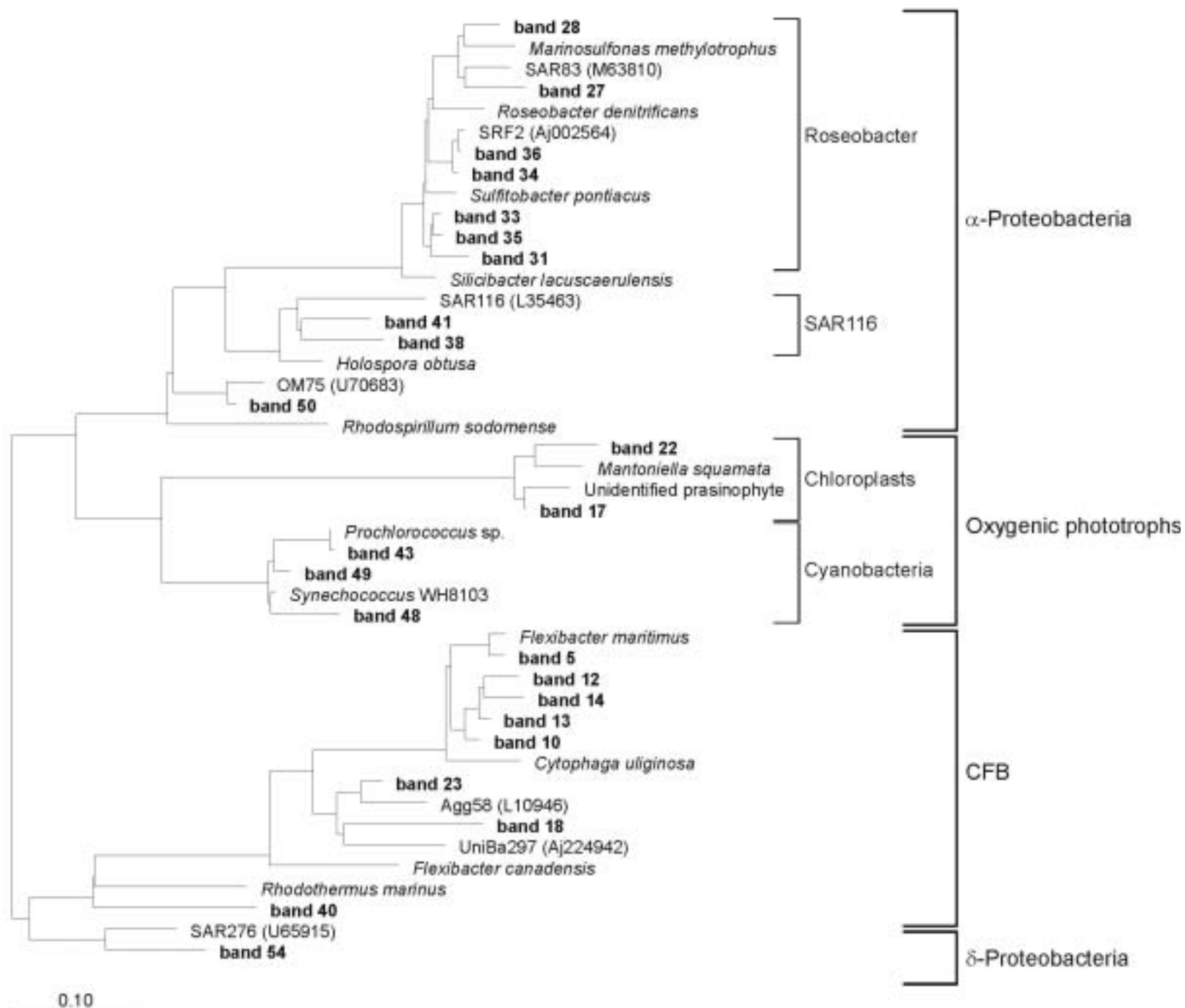
DGGE: 1f/516r

# Seasonal cycle during 1998

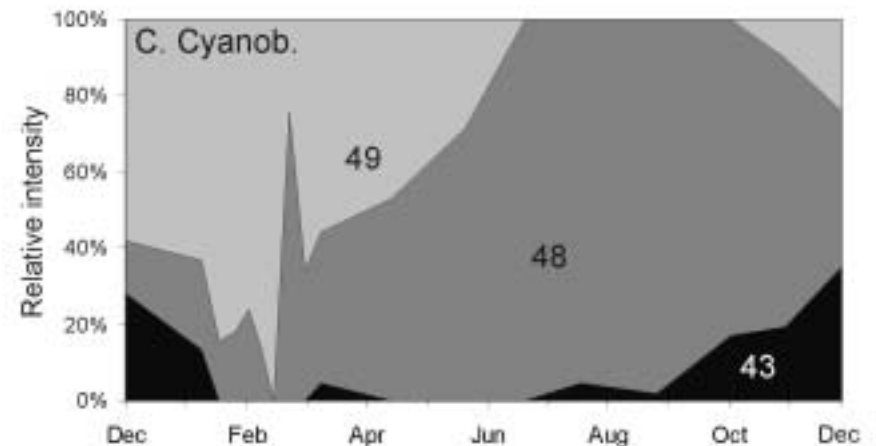
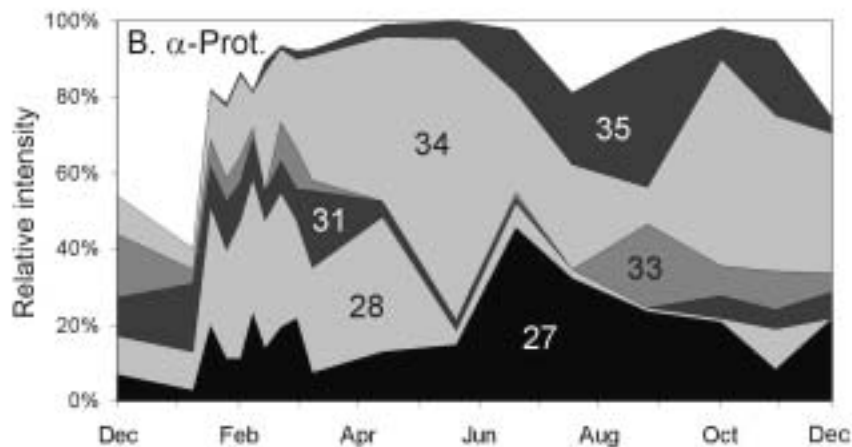
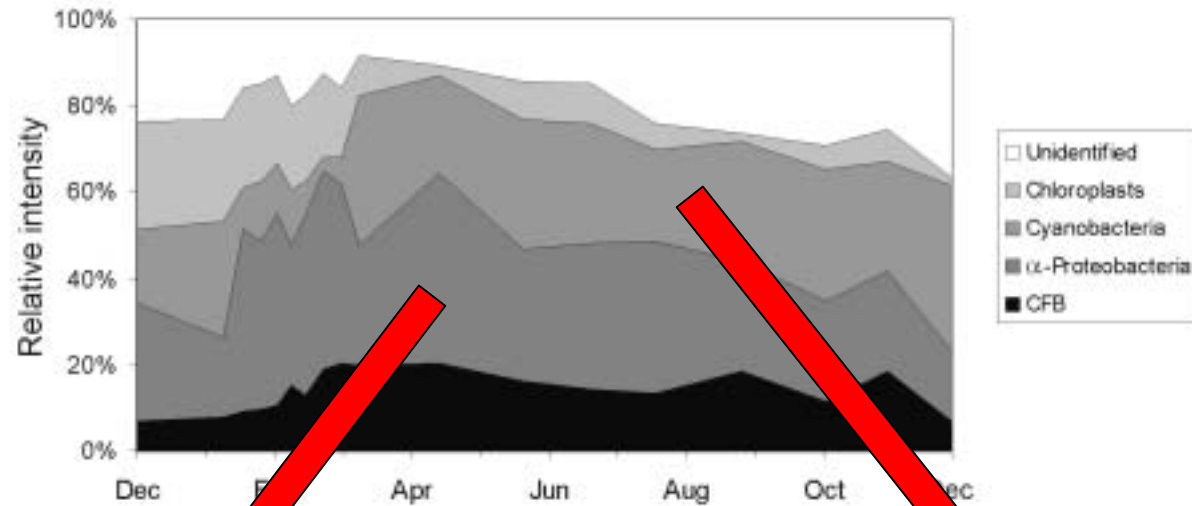
Dec97 Jan Feb Mar Apr Jun Jul Sep Oct Nov Dec  
 22 27 5 12 19 25 3 11 18 26 29 3 2 29 3 9 4 1



**Bacteria**



# Temporal dynamics of bacterial groups and populations

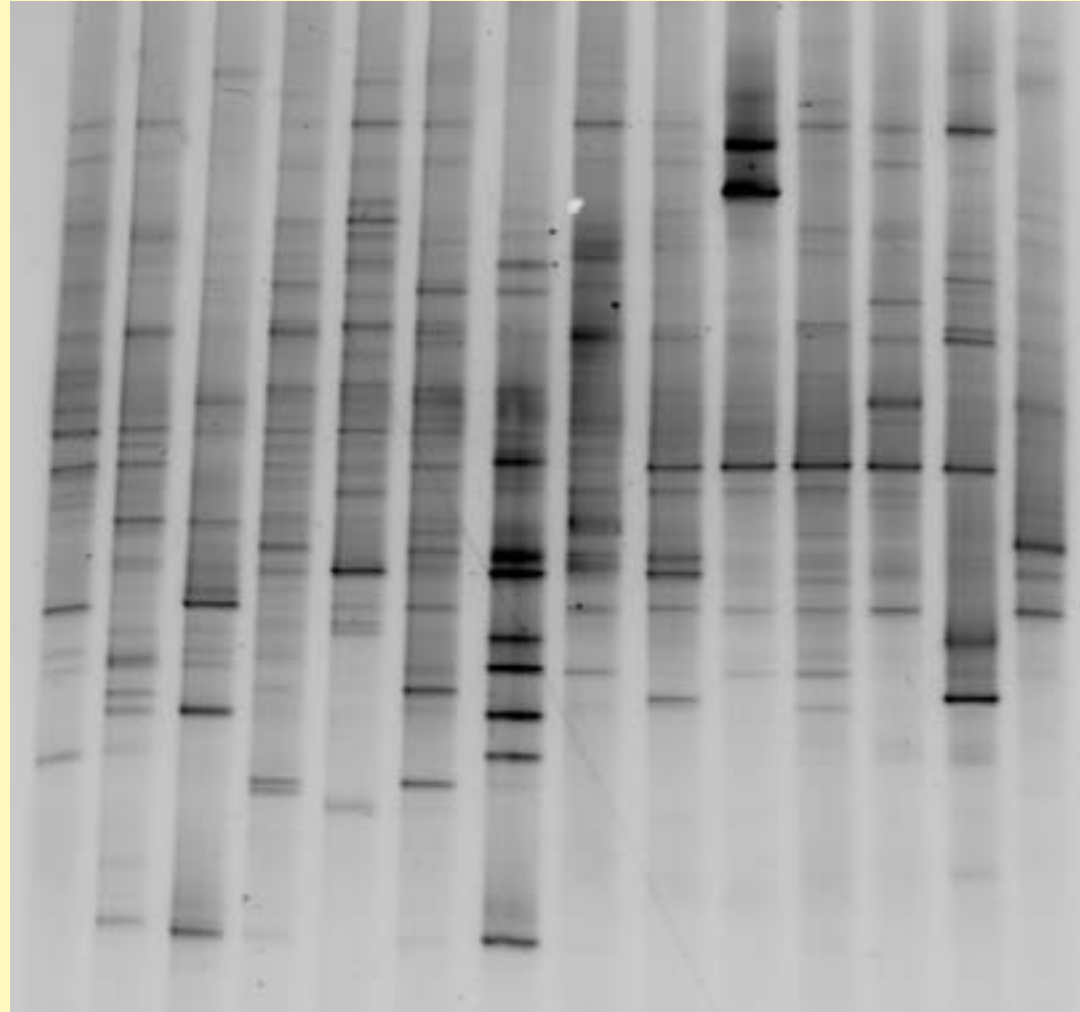


# PI CODI V - Blanes Bay - Picoeukaryotes

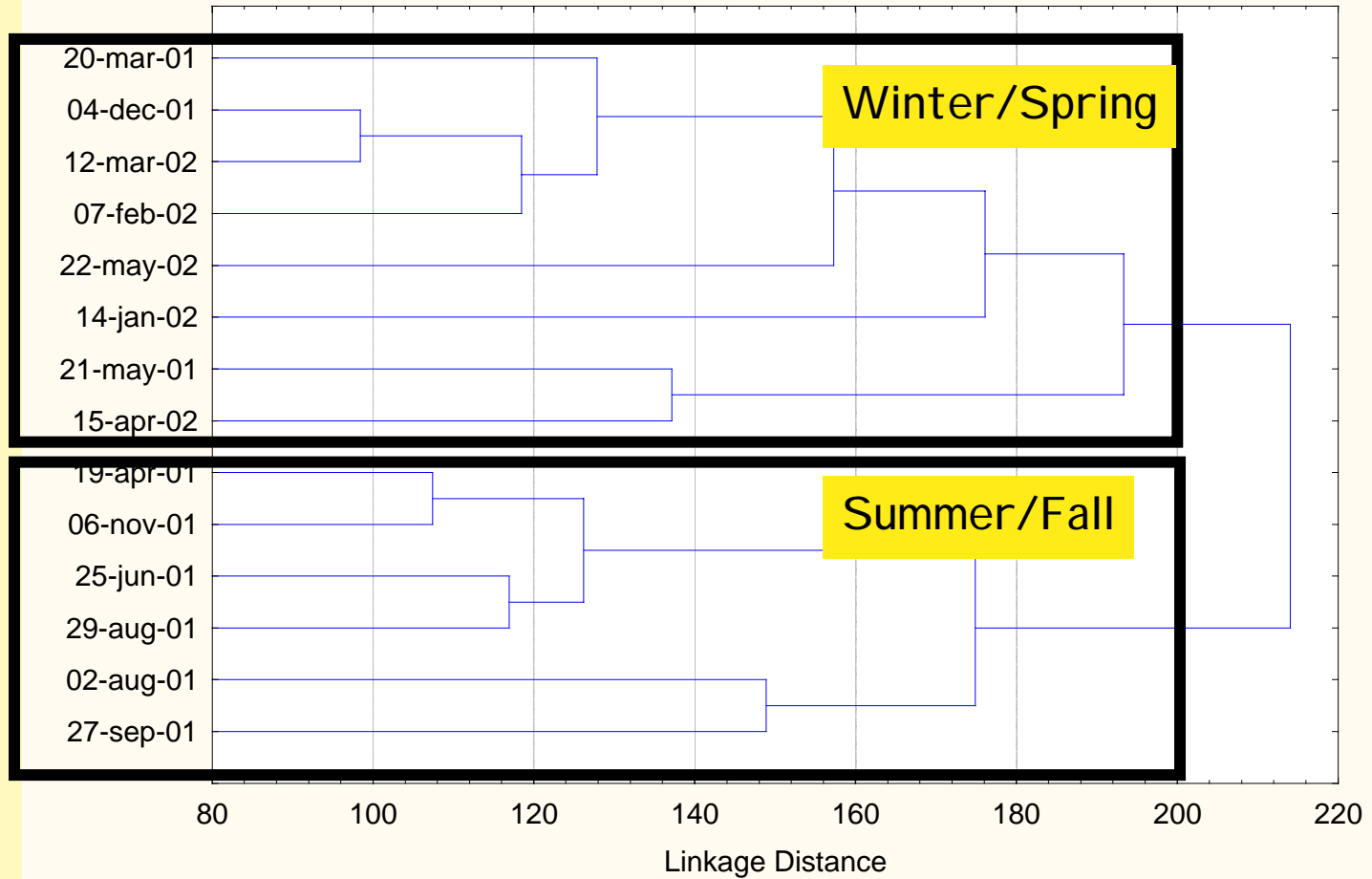
2001

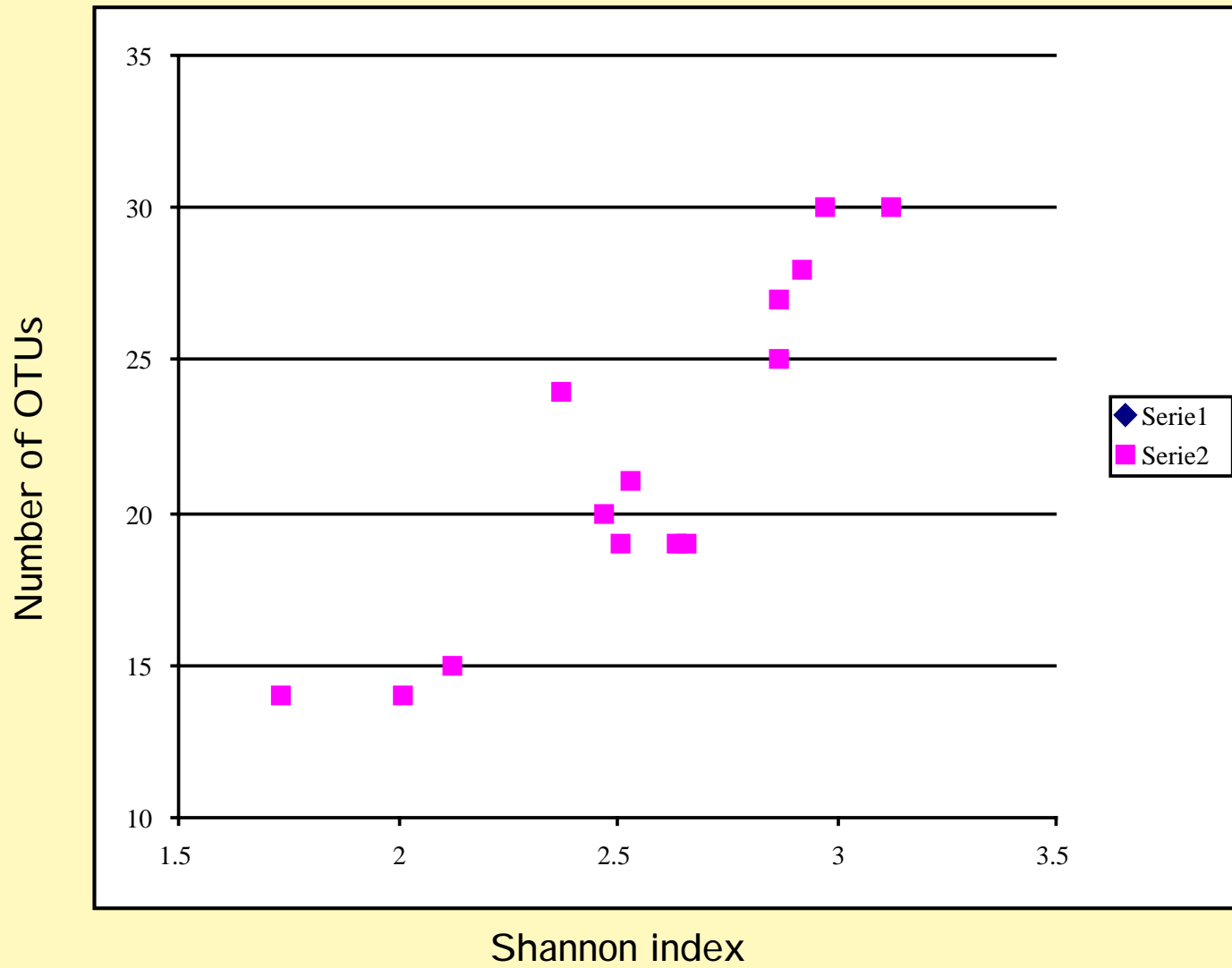
2002

20/3 19/4 23/5 25/6 2/8 29/8 27/9 6/11 4/12 14/1 7/2 12/3 15/4 22/5



Tree Diagram for 14 Cases  
Ward's method  
City-block (Manhattan) distances



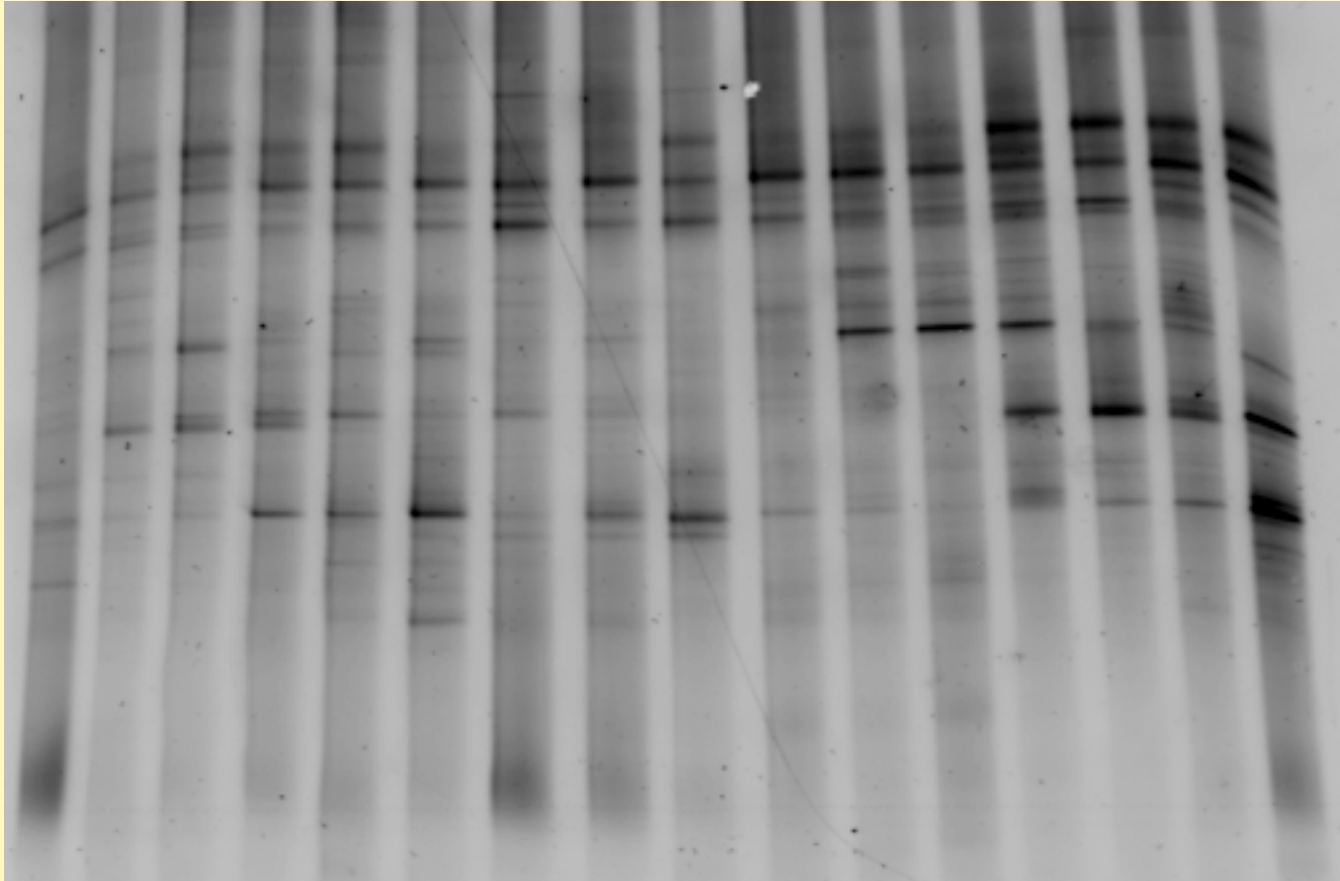


# Blanes Bay - Bacteria

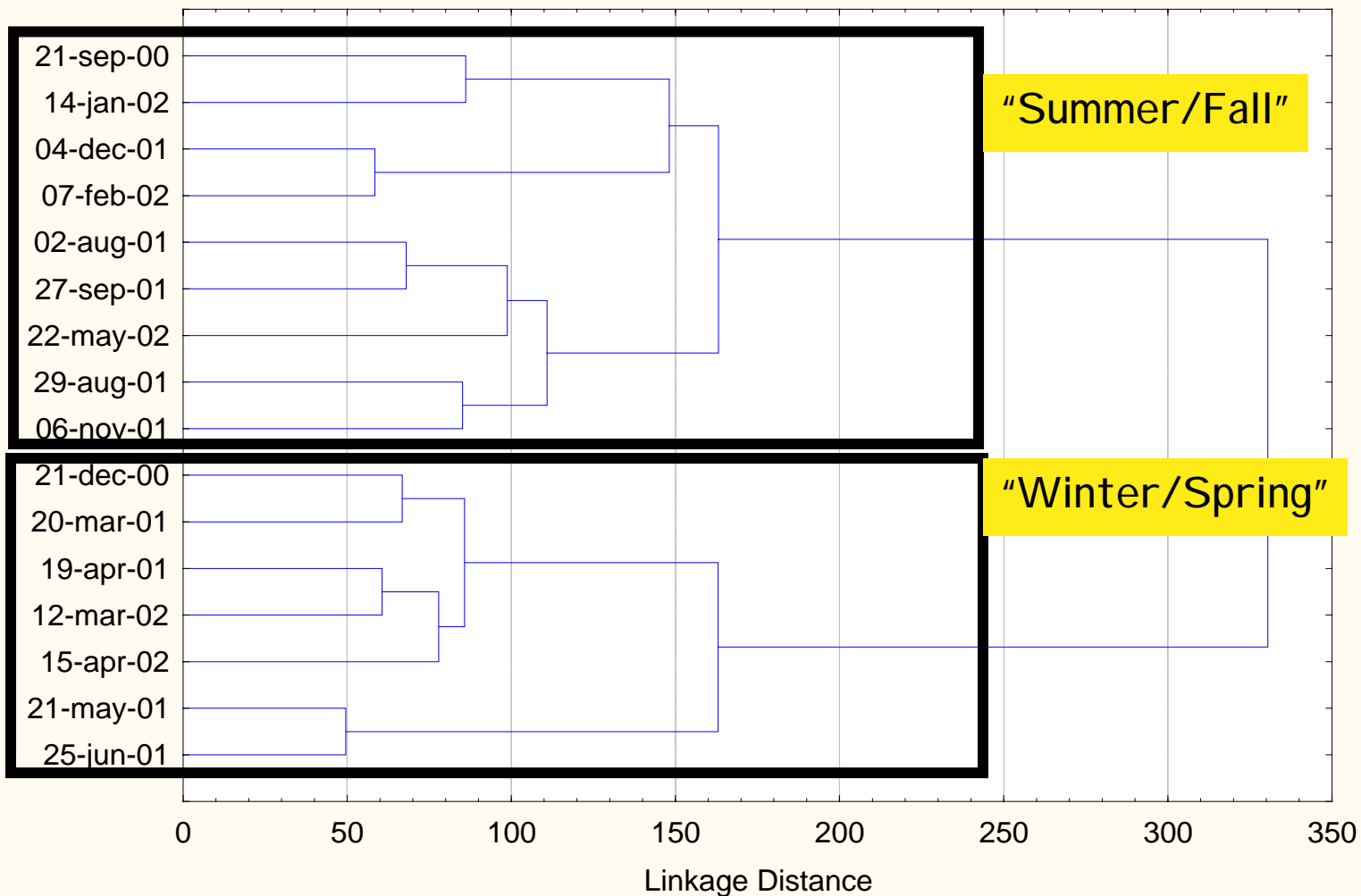
2001

2002

21/9 21/12 20/3 19/4 23/5 25/6 2/8 29/8 27/9 6/11 4/12 14/1 7/2 12/3 15/4 22/5



Tree Diagram for 16 Cases  
Ward's method  
City-block (Manhattan) distances



# Roscoff samples - Dgge-1

5 March

19 March

2 April

12 April

2 May

16 May

29 May

13 June

23 June

13 July

31 July

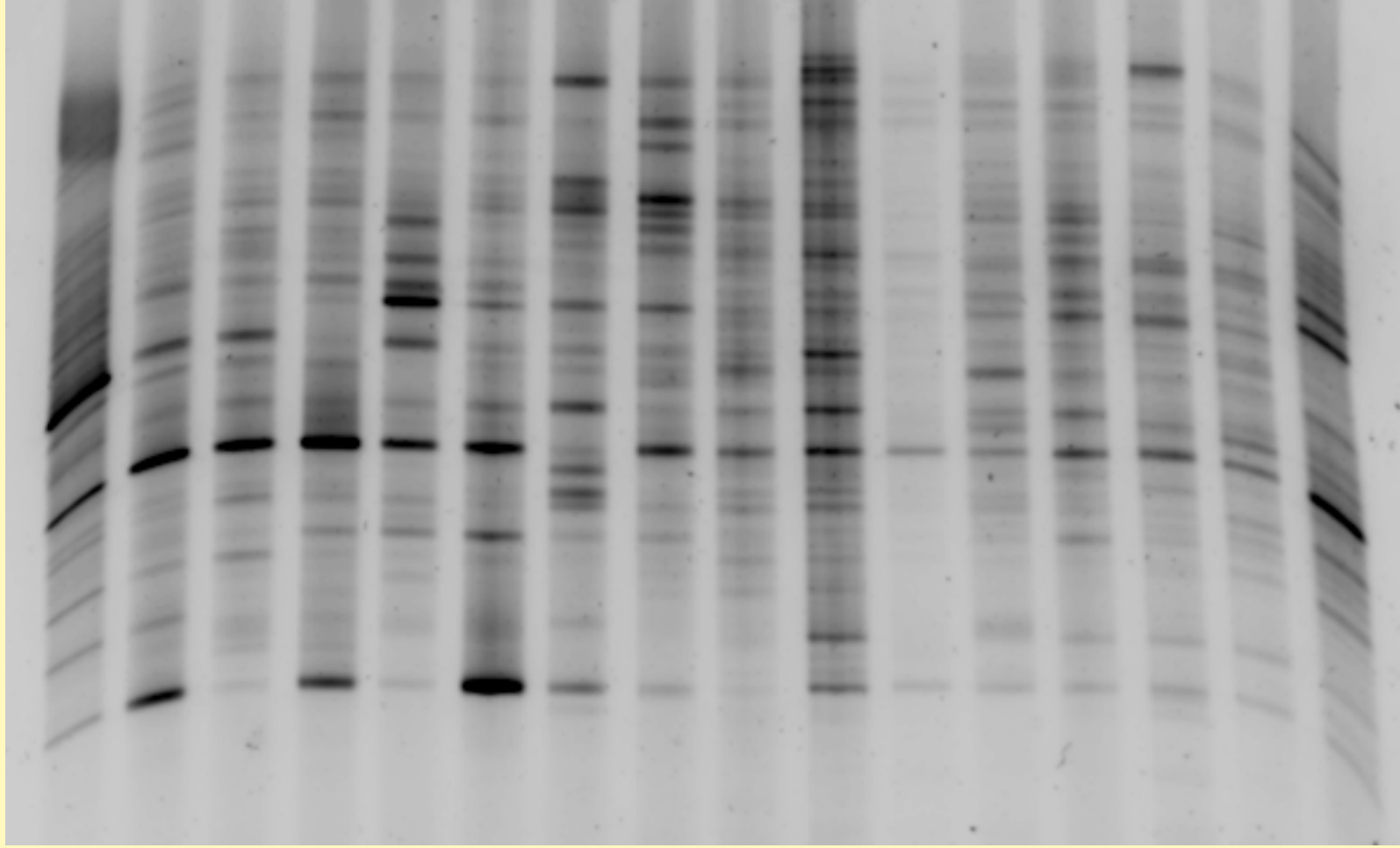
12 August

14 August

31 August

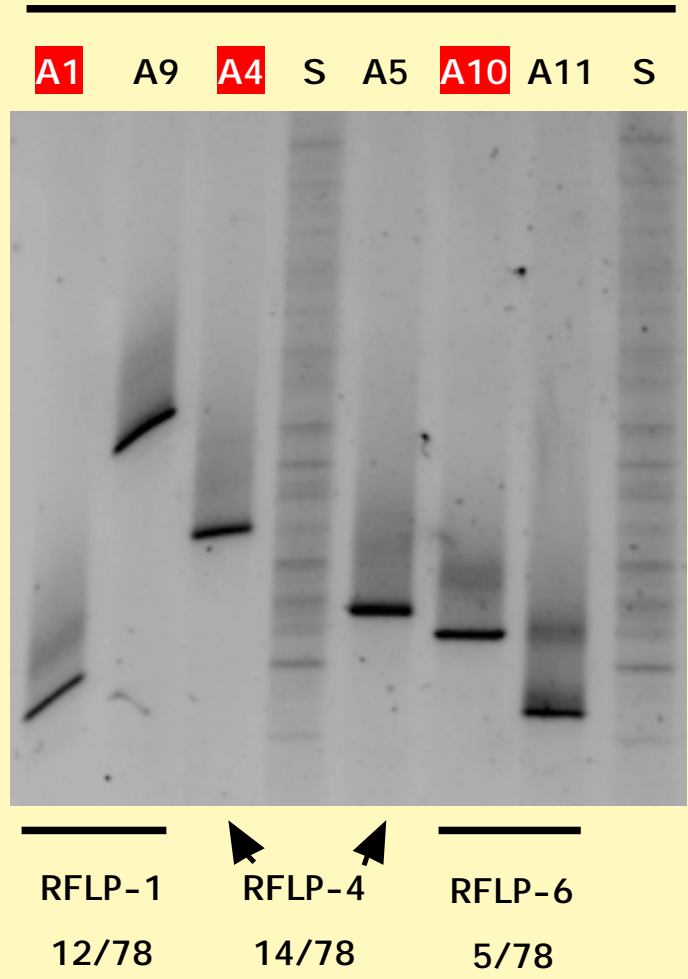
26 September

11 October



# Other applications of DGGE

BL000921

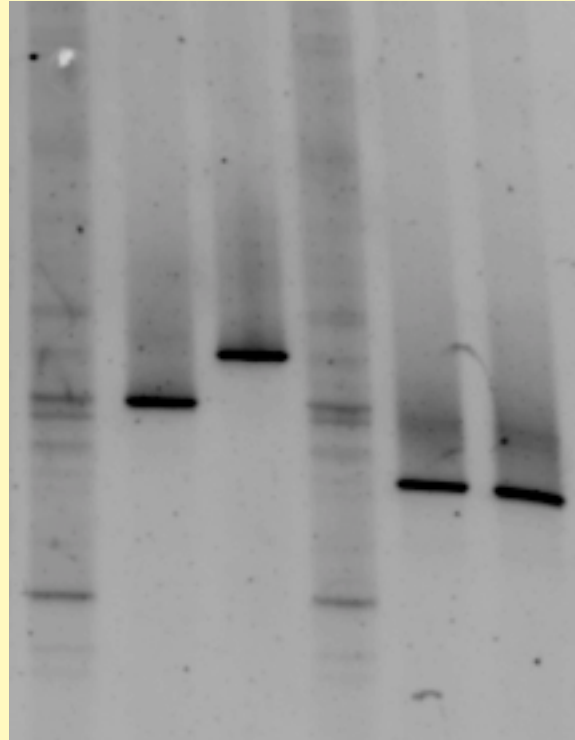


A1	BL000921.1	A1_E045 (99.2)	Novel alveolate
A4	BL000921.4	C1_E005 (99.0)	Novel alveolate
A10	BL000921.6	Gyrodinium galatheanum (98.0)	Dinoflagellate

# BL010320

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S **C3** C8 S **C22** C36



RFLP-3

28/88

RFLP-12

10/88

C3 BL010320.3 C1\_E005 (99.8)

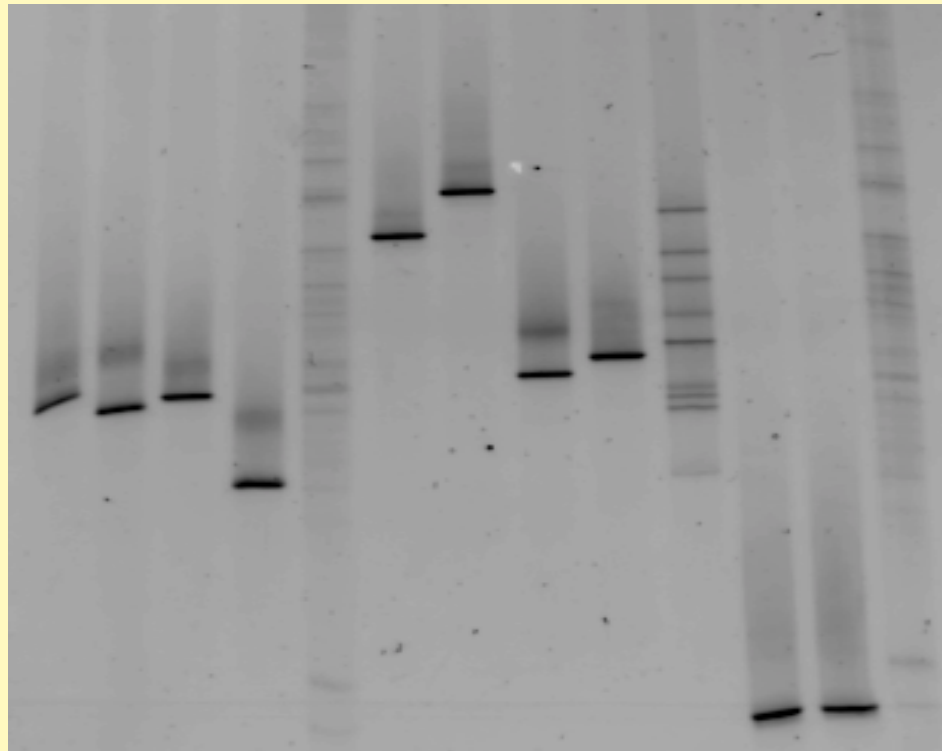
Novel alveolat

C22 BL010320.12 CS\_E023 (98.6)

Novel alveolat

# BL010625

**D7** D13 **D17** D26 S **D14** D21 **D19** D36 L **D38** D65 S



**RFLP-7**   **RFLP-15**        **RFLP-12** **RFLP-17**        **RFLP-29**  
 10/106    9/106                    5/106    5/106                    5/106

D7	BL010625.7	DH147-EKD16 (91.5)	Novel alveolate-II
D17	BL010625.15	C5_E023 (98.4)	Novel alveolate-I
D14	BL010625.12	Chlorarachniophyte (93.8)	Chlorarachniophyte
D19	BL010625.17	Pentapharsodinium sp. (95.2)	Dinoflagellate
D38	BL010625.29	Acila castrensis (97.8)	Bivalvia

# Sequencing different clones giving the same RFLP pattern

