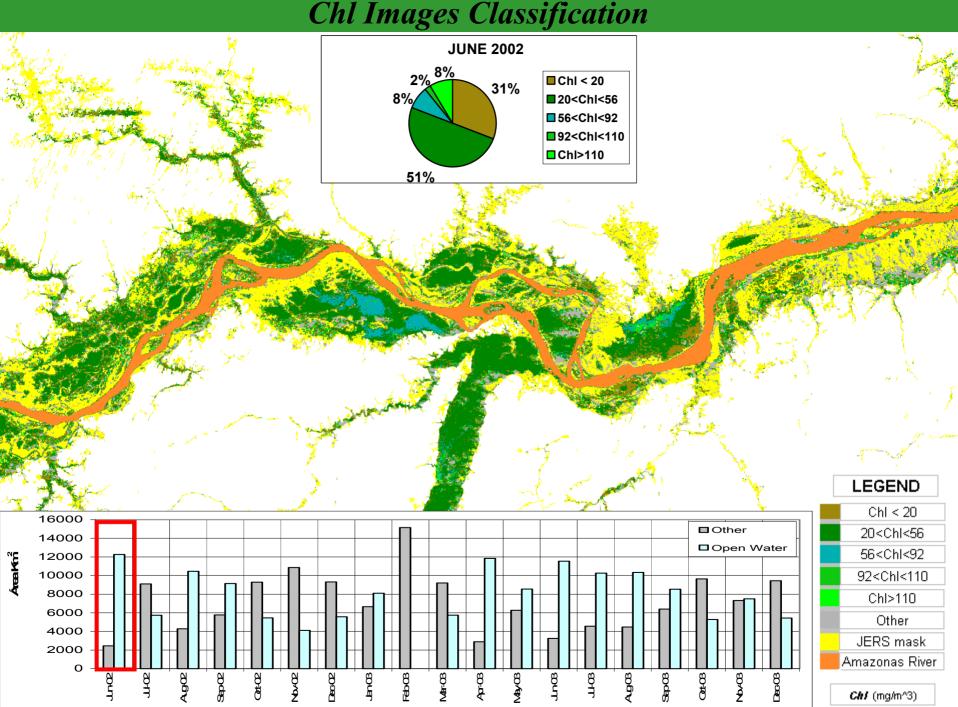






## Seasonal changes in phytoplankton distribution from Óbidos to Almerim in response to Amazon flood pulse\*

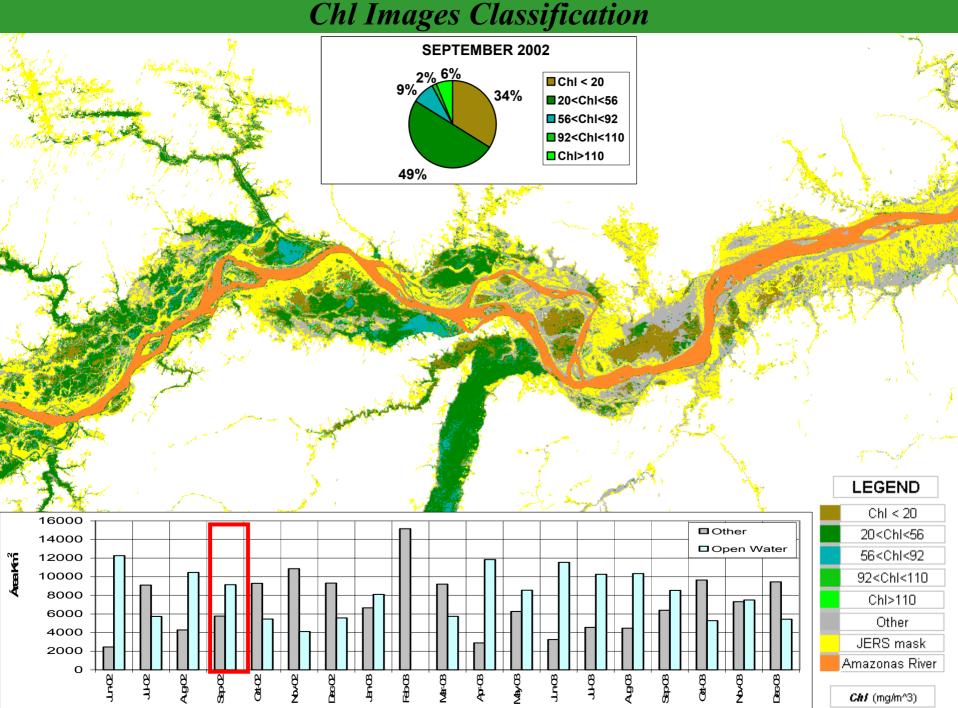
Evlyn M. Novo, INPE, evlyn@ltid.inpe.br Claudio F. Barbosa,INPE, claudio@dpi.inpe.br Ramon M. Freitas, INPE, ramon@ltid.inpe.br John M. Melack, UCSB, melack@lifesci.ucsb.edu Yosio E. Shimabukuro, INPE, yosio@ltid.inpe.br Waterloo Pereira Filho, UFSM, waterloo@base.ufsm.br \* LBA Project – L07



Chl Images Classification **JULY 2002** 13% □ ChI < 20 ■20<Chl<56 42% ■56<Chl<92 ■92<Chl<110 □ ChI>110 34% **LEGEND** Chl < 20 16000 ■ Other 20<Chl<56 14000 ■ Open Water 56<Chl<92 12000 10000 92<Chl<110 8000 Chl>110 6000 Other 4000 JERS mask 2000 Amazonas River **ChI** (mg/m^3)

Chl Images Classification **AUGUST 2002** □ ChI < 20 ■20<Chl<56 39% ■56<Chl<92 ■92<Chl<110 □ ChI>110 42% **LEGEND** Chl < 20 16000 ■ Other 20<Chl<56 14000 ■ Open Water 56<Chl<92 12000 10000 92<Chl<110 8000 Chl>110 6000 Other 4000 JERS mask 2000 Amazonas River

**ChI** (mg/m^3)



Chl Images Classification **OCTOBER 2002** 19% □ ChI < 20 37% ■20<Chl<56 3% ■56<ChI<92 8% ■92<Chl<110 □ ChI>110 33% **LEGEND** Chl < 20 16000 Other 20<Chl<56 14000 ■ Open Water 56<Chl<92 12000 10000 92<Chl<110 8000 Chl>110 6000 Other 4000 JERS mask 2000 Amazonas River **ChI** (mg/m^3)

Chl Images Classification **NOVEMBER 2002** 17% □ ChI < 20 32% ■20<Chl<56 5% ■56<Chl<92 13% ■92<Chl<110 □ ChI>110 33% **LEGEND** Chl < 20 16000 ■ Other 20<Chl<56 14000 ■ Open Water 56<Chl<92 12000 10000 92<Chl<110 8000 Chl>110 6000 Other 4000 JERS mask 2000 Amazonas River **ChI** (mg/m^3)

Chl Images Classification **DECEMBER 2002** 17% 23% □ ChI < 20 ■20<Chl<56 7% ■56<Chl<92 ■92<Chl<110 □ ChI>110 27% 26% **LEGEND** Chl < 20 16000 Other 20<Chl<56 14000 ■ Open Water 56<Chl<92 12000 10000 92<Chl<110 8000 Chl>110 6000 Other 4000 JERS mask 2000 Amazonas River

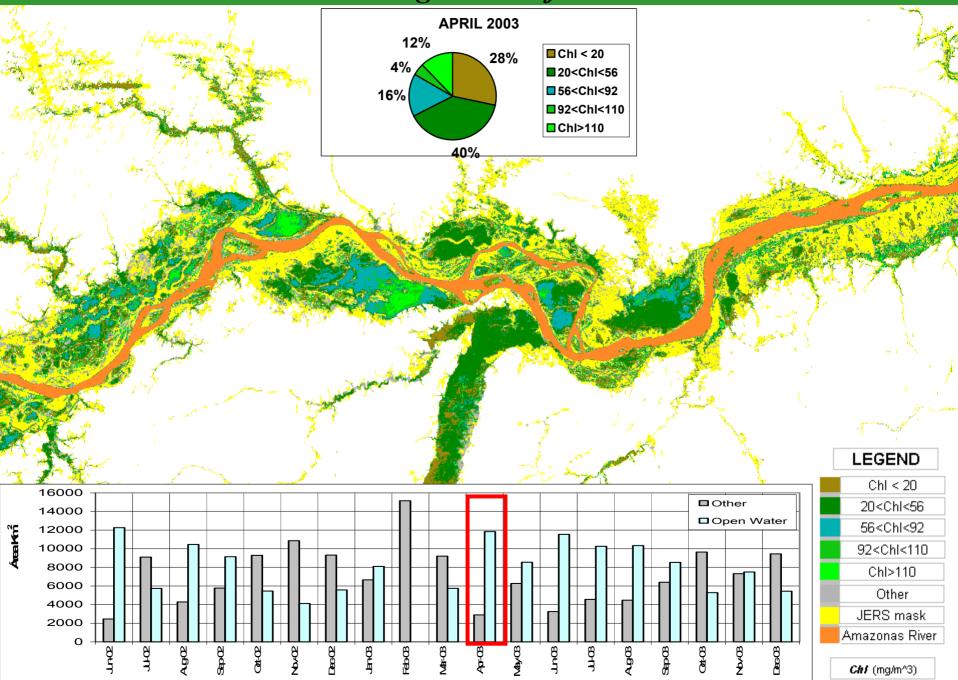
**ChI** (mg/m^3)

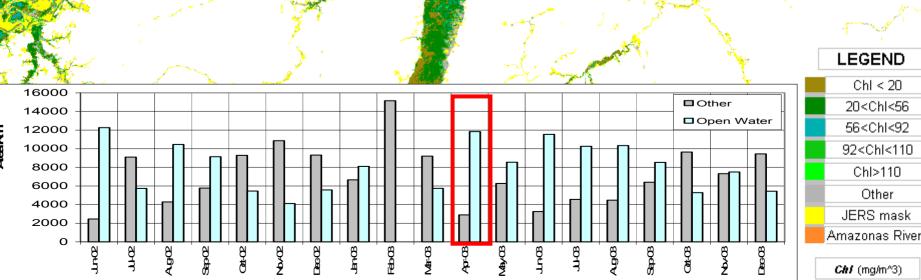
Chl Images Classification **JANUARY 2003** 15% □ ChI < 20 34% 4% ■20<Chl<56 ■56<Chl<92 14% ■92<Chl<110 □ ChI>110 **LEGEND** Chl < 20 16000 ■ Other 20<Chl<56 14000 ■ Open Water 56<Chl<92 12000 10000 92<Chl<110 8000 Chl>110 6000 Other 4000 JERS mask 2000 Amazonas River **ChI** (mg/m^3)

Chl Images Classification **FEBRUARY 2003** 0% □ ChI < 20 ■20<Chl<56 ■56<ChI<92 ■92<Chl<110 □ ChI>110 **□** Other 100% **LEGEND** Chl < 20 16000 ■ Other 20<Chl<56 14000 ■ Open Water 56<Chl<92 12000 10000 92<Chl<110 8000 Chl>110 6000 Other 4000 JERS mask 2000 Amazonas River Apras **ChI** (mg/m^3)

Chl Images Classification **MARCH 2003** 13% □ ChI < 20 31% 5% ■20<Chl<56 ■56<Chl<92 16% ■92<Chl<110 □ ChI>110 35% **LEGEND** Chl < 20 16000 Other 20<Chl<56 14000 ■ Open Water 56<Chl<92 12000 10000 92<Chl<110 8000 Chl>110 6000 Other 4000 JERS mask 2000 Amazonas River **ChI** (mg/m^3)

Chl Images Classification **APRIL 2003** 12% □ ChI < 20 28% 4% ■20<Chl<56 ■56<Chl<92 16% ■92<Chl<110 □ ChI>110 40%

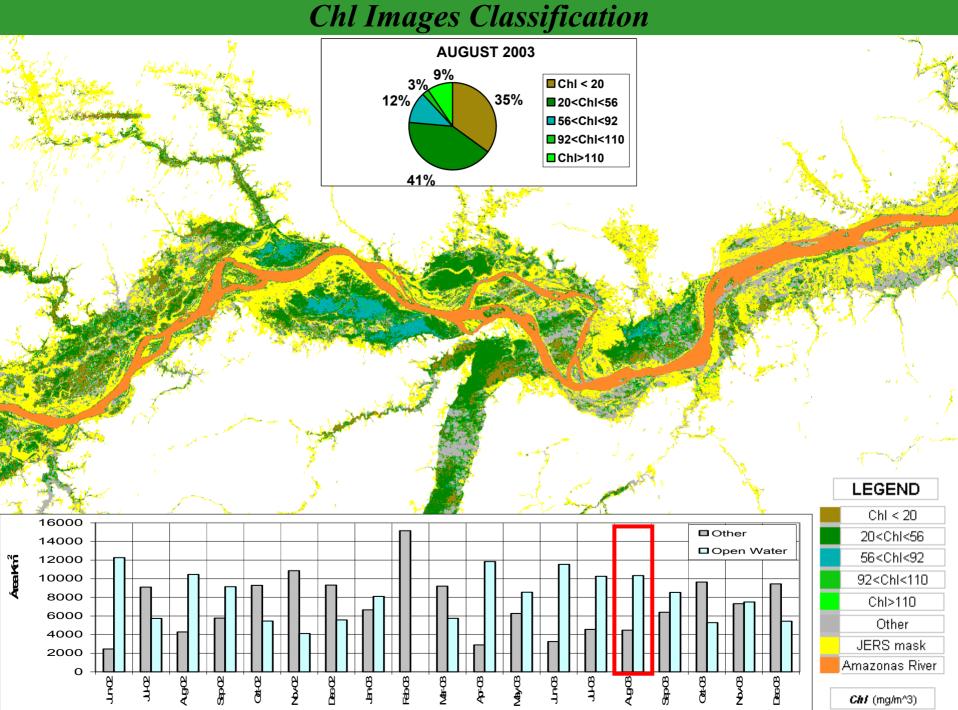




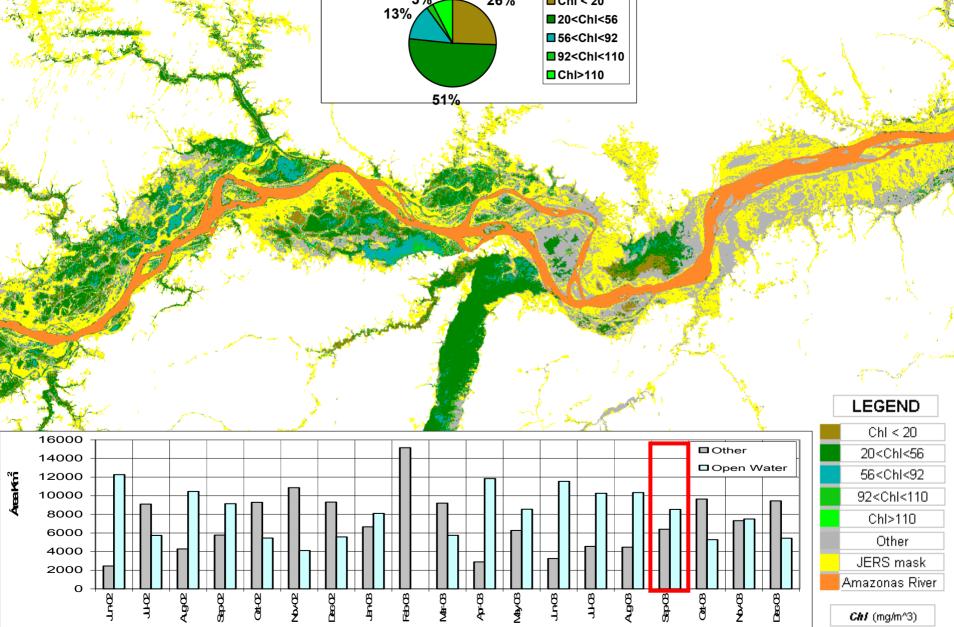
Chl Images Classification **MAY 2003** 13% □ ChI < 20 32% 4% ■20<Chl<56 ■56<Chl<92 15% ■92<Chl<110 □ ChI>110 36% **LEGEND** Chl < 20 16000 ■ Other 20<Chl<56 14000 ■ Open Water 56<Chl<92 12000 10000 92<Chl<110 8000 Chl>110 6000 Other 4000 JERS mask 2000 Amazonas River **ChI** (mg/m^3)

Chl Images Classification **JUNE 2003** 10% 2% 27% □ ChI < 20 ■20<Chl<56 11% ■56<Chl<92 ■92<Chl<110 □ ChI>110 49% **LEGEND** Chl < 20 16000 Other 20<Chl<56 14000 ■ Open Water 56<Chl<92 12000 10000 92<Chl<110 8000 Chl>110 6000 Other 4000 JERS mask 2000 Amazonas River **ChI** (mg/m^3)

Chl Images Classification **JULY 2003** □ ChI < 20 29% ■20<Chl<56 10% ■56<Chl<92 ■92<Chl<110 □ ChI>110 49% **LEGEND** Chl < 20 16000 Other 20<Chl<56 14000 ■ Open Water 56<Chl<92 12000 10000 92<Chl<110 8000 Chl>110 6000 Other 4000 JERS mask 2000 Amazonas River **ChI** (mg/m^3)

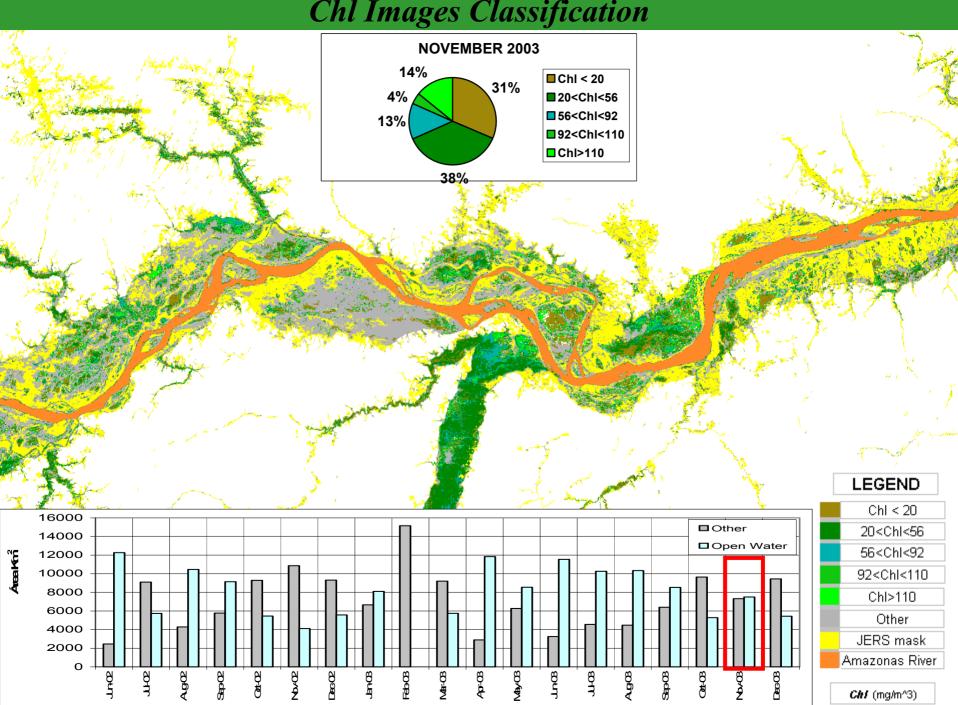


Chl Images Classification **SEPTEMBER 2003** 3% 7% 26% □ ChI < 20 13% ■20<Chl<56 ■56<Chl<92 ■92<Chl<110 □ ChI>110 51%



Chl Images Classification 11% CTOBER 2003 2% □ ChI < 20 6% ■20<Chl<56 ■56<Chl<92 49% ■92<Chl<110 □ ChI>110 32% **LEGEND** Chl < 20 16000 ■ Other 20<Chl<56 14000 ■ Open Water 56<Chl<92 12000 10000 92<Chl<110 8000 Chl>110 6000 Other 4000 JERS mask 2000 Amazonas River

**ChI** (mg/m^3)



Chl Images Classification **DECEMBER 2003** 13% □ ChI < 20 ■20<Chl<56 38% 10% ■56<Chl<92 ■92<Chl<110 □ ChI>110 36% **LEGEND** Chl < 20 16000 Other 20<Chl<56 14000 ■ Open Water 56<Chl<92 12000 10000 92<Chl<110 8000 Chl>110 6000 Other 4000 JERS mask 2000 Amazonas River **ChI** (mg/m^3)