Color Plate 1

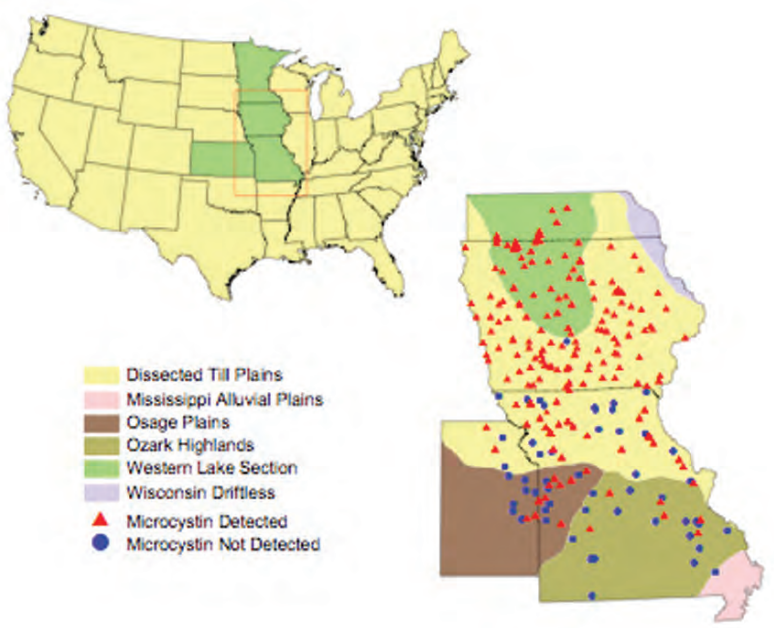

Fig. 3 (Chapter 3). Trends in Microcystin Occurrence in Midwestern Lakes. Taken from Graham et al. 2004. (See page 54).

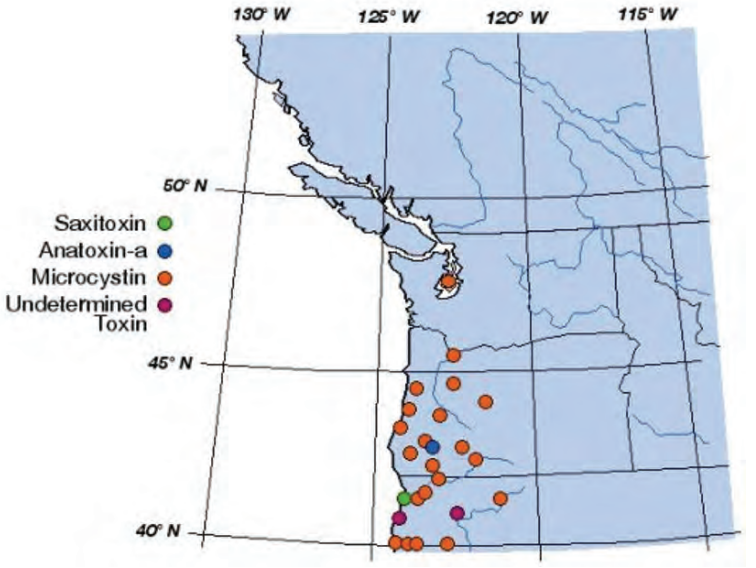

Fig. 4 (Chapter 3). Cyanotoxin Events in the Pacific Northwest (2001–2005). Taken from Carmichael 2006. (See page 54).

Color Plate 2

Fig. 12 (Chapter 3). Anabaena bloom on Lake Pontchartrain (Photo courtesy of John Burns. See page 82).

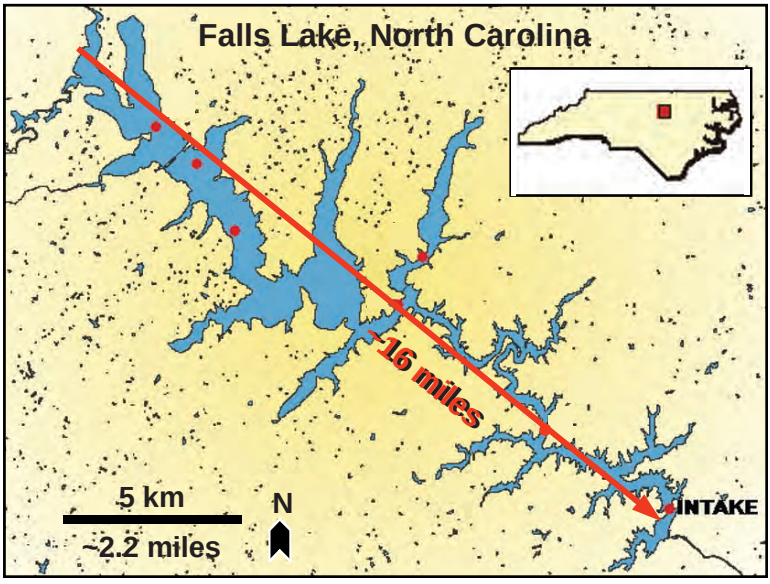

Fig. 13 (Chapter 3). Map of Falls Lake, NC, indicating six sampling stations and the location of the intake for the water treatment plant of the capital city, Raleigh. *The watershed is sustaining rapid human population growth and associated increased nutrient runoff into receiving waters. From Burkholder (2006b).* (See page 82).

Color Plate 3

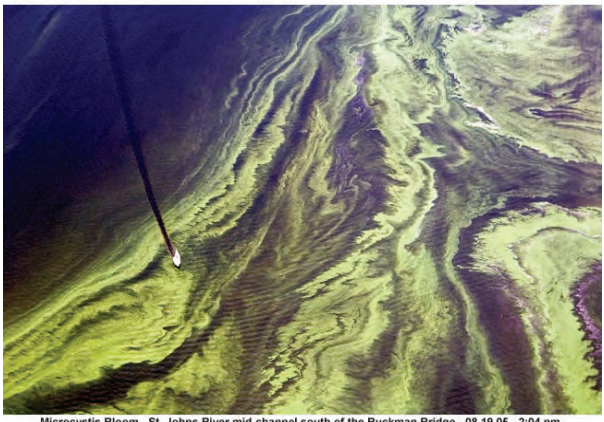

Fig. 1 (Chapter 5). Mycrocystis Bloom—St. Johns River mid-channel south of the Buckman Bridge. (See page 133).

Fig. 2 (Chapter 5). Microcystis Bloom—I295 (Buckman Bridge) over the St. Johns River. (See page 134).

Fig. 3 (Chapter 5). Microcystis Bloom – East bank of the St. Johns River – Mandarin. (See page 134).

Color Plate 4

Fig. 3 (Chapter 6). Posting of warning signs at lake beaches and boat ramps. (See page 150).

Fig. 1 (Chapter 10). Harmful cyanobacterial blooms in a range of nutrient–enriched aquatic ecosystems. Upper left. A bloom of the non–N_2 fixing genera *Microcystis aeruginosa* and *Oscillatoria* sp. in the Neuse River, NC (Photo, H. Paerl). Upper right. A mixed *Microcystis* sp. and *Anabaena* spp. (N_2 fixers) bloom in the St. Johns River, Florida (Photo, J. Burns). Lower left. A bloom of the benthic filamentous N_2 fixer *Lyngbya wollei* in Ichetucknee Springs, Florida (Photo H. Paerl). Lower right. A massive bloom of *Microcystis* sp. and *Anabaena* spp. in Lake Ponchartrain, Louisiana (Photo J. Burns). (See page 219).

Color Plate 5

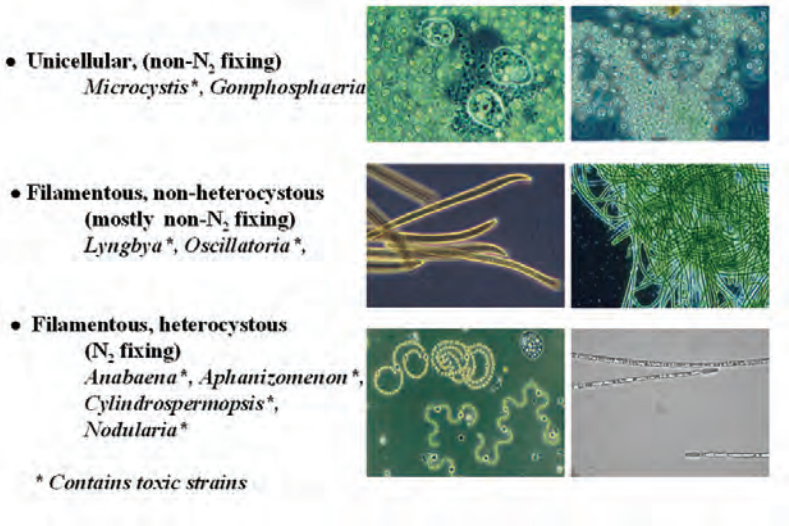

Fig. 2 (Chapter 10). Photomicrographs of genera representing the three major CHAB morphological groups, including coccoid, filamentous non–heterocystous and filamentous heterocystous types. (See page 220).

Fig. 3 (Chapter 10). Painting of Haarlemmermeer, a shallow, eutrophic lake in the Netherlands. Jan van Gooyen, ca. 1650. Note the surface scums characterizing the lake. (See page 220).

Color Plate 6

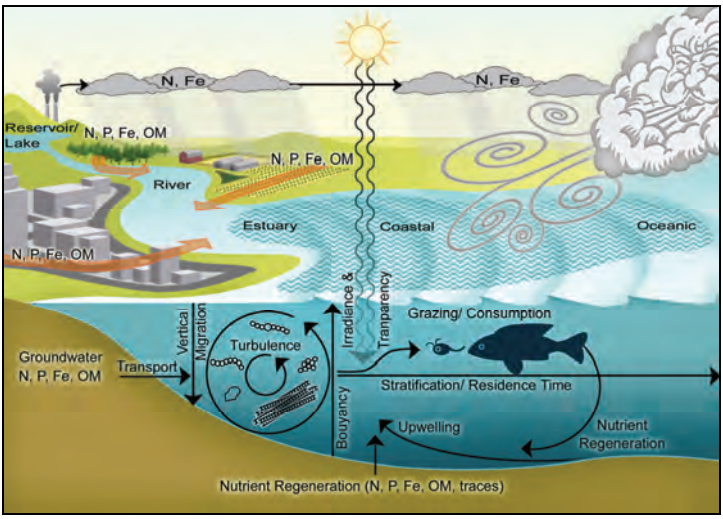

Fig. 4 (Chapter 10). Conceptual diagram, showing the interactive physical, chemical and biotic controls of cyanobacterial blooms along the freshwater–marine continuum. (See page 221).

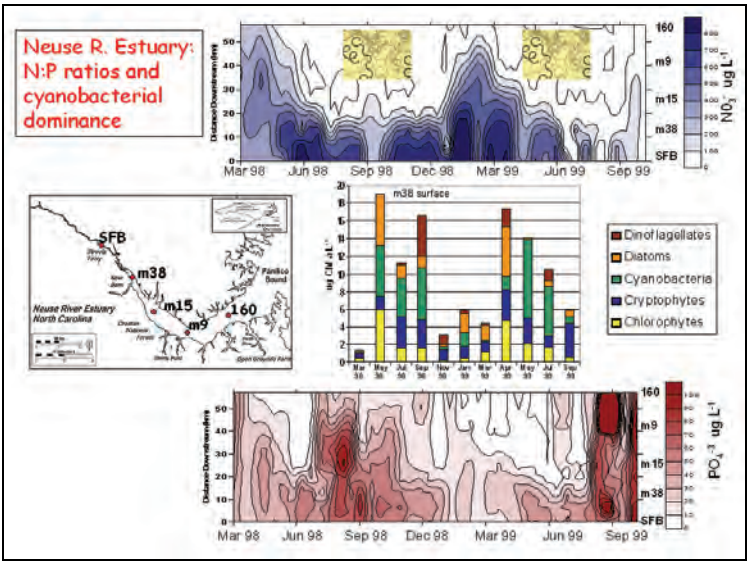

Fig. 5 (Chapter 10). Relationship, in space and time, of nitrate and phosphate concentrations, and relative dominance by cyanobacteria in the Neuse River Estuary, NC. Phytoplankton composition along a transect of 5 locations ranging from the upper oligohaline to lower mesohaline segments of the estuary was determined using high performance liquid chromatographic (HPLC) analysis of diagnostic (for major algal groups) photopigments (see Paerl et al. 2003). The period during which N_2 fixing cyanobacteria were present is indicated by the photomicrograph in the upper frame. (See page 223).

Color Plate 7

Fig. 1 (Chapter 20). Samples of currently available deployable systems that can be used in situ to sense conditions associated with potential CHAB events. 1). Flow Cam system from Fluid Imaging Technologies can identify cell type in situ. 2). Fluoroprobe system can identify water column phytoplankton based on a combination of 6 different fluorescence signatures. 3). NAS nutrient analyzer can detect in situ biogeochemical shifts that can be linked to pending CHAB events. (See page 477).

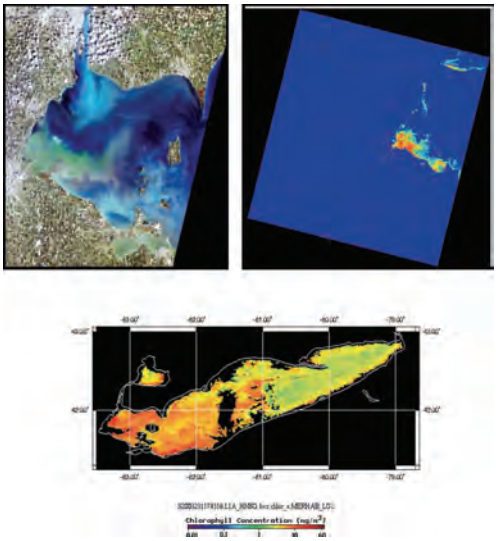

Fig. 2 (Chapter 20). Sample imagery available from satellites appropriate for monitoring CHAB events. True color imagery from Land Sat 7 (upper left, Rinta–Kanto et al. 2005) can be used to demonstrate potential algal blooms, which appear as green discolorations in the water column. The cyanobacterial–specific pigment phycocyanin can be elucidated from the appropriate applications of other algorithms (upper right, Vincent et al. 2003). Other imagery, such as daily Sea Wifs chlorophyll estimates (bottom) is available more frequently but provides less spatial resolution. (See page 477).

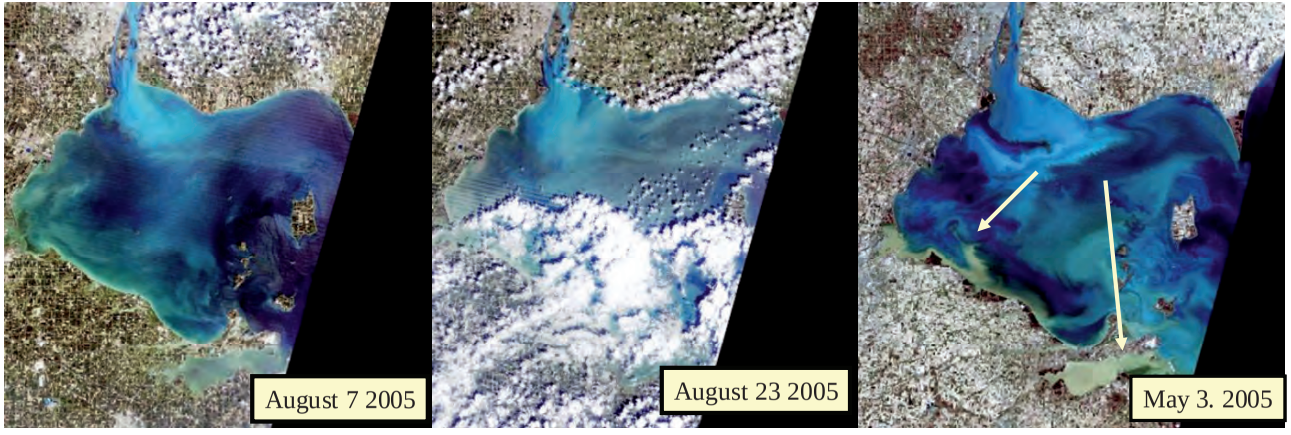

Fig. 1 (Chapter 22). LandSat 7 image of the western basin of Lake Erie for August 7, 2005. Greenish coloration of the water column in Sandusky Bay and at the mouth of the Maumee River suggests the onset of seasonal cyanobacterial blooms. (See page 504).