

tude of <450 ft and 150–160 mph (Havera 1999). We defined waterfowl abundance in both river systems as peak numbers observed during approximately weekly surveys during fall and used running averages to extrapolate weekly bird abundance to cumulative use-days for the season (Stafford et al. 2007). For example, 100 birds using a wetland for 10 days equates to 1,000 use-days (Stafford et al. 2007, 2010).

RESULTS AND DISCUSSION

Persistent drought and exceptionally warm temperatures occurred throughout most of the central United States, including the IRV and CMRV, during 2012. As a result, water levels receded early in the growing season creating excellent conditions for moist-soil plant development in many wetlands and lake margins. Specifically, water levels in the Illinois River fell below 8 ft. (14 ft. flood stage) in Havana on 25 May and remained low in both Peoria and La Grange pools of the IRV throughout the growing season (Fig. 2). This drawdown was considered early to mid-season in terms of moist-soil management (Fredrickson and Taylor 1982). Many (19 of 27 wetlands; 70%) of the monitored IRV wetlands had above average to excellent waterfowl food resources at the onset of fall migration. Like the IRV, waterfowl foraging habitat in the CMRV was considered above average during fall 2012. Most (15 of 18 locations; 83%) surveyed wetlands had above average to excellent duck foraging habitat. Extensive beds of submersed aquatic vegetation were visible in Pool 19 of the Mississippi River during September 2012 surveys. Accordingly, diving duck foraging habitat appeared better in fall 2012 than fall 2011.

Facing page: Aerial inventories of waterfowl have been taken since 1948 each fall in Illinois. Photo provided by Aaron P. Yetter.

Right: Ducks descend on Lake Chautauqua, Mason County, Illinois, in fall. Photo provided by Aaron P. Yetter.

Peak abundance of total ducks was greater in the IRV and CMRV in 2012 than 2011. Additionally, duck abundance in the IRV exceeded long-term averages during all weekly surveys. In the IRV, peak abundance of total ducks occurred on 12 December 2012 (617,565); this estimate was 115% greater than the 2011 peak, and 157% above the most recent 5-yr average (2007–2011; Table 1; Fig. 3). Total duck abundance in the CMRV peaked on 12 December at 531,040 and was 40% greater than 2011 and 38% above the 5-yr average (Table 1; Fig. 4). Peak abundance of total ducks for the two river systems combined (1,148,605) was 88% greater than in 2011 and 90% above the 5-yr average (Table 1).

In the IRV, peak abundance estimates for northern pintail (-15%),



American green-winged teal (-12%), and American wigeon (-78%) were less in 2012 than 2011, whereas estimates for mallard (+207%), American black duck (+51%), blue-winged teal (+101%), gadwall (+66%), and northern shoveler (+25%) were greater in 2012 than 2011. The peak estimate of total dabbling ducks (583,370) was 123% greater than the 2011 estimate and 169% above the 5-yr average (Table 1).

In the CMRV, 2012 peak abundance estimates for American green-winged teal (-19%) and American wigeon (-24%) were less than in 2011. Peak estimates for all other dabbling duck species in the CMRV were greater in 2012 than 2011 (Mallard [+46%], American Black Duck [+320%], Northern Pintail [+24%], Blue-winged Teal [+397%], Gadwall [+21%] and Northern Shoveler [+21%]). Peak abundance of all dabbling duck species in the CMRV was 40% greater in 2012 (424,905) than 2011 and 46% above the 5-yr average (Table 1; Fig. 4).

Diving duck abundance in the IRV peaked on 6 December in 2012 at 48,285; this was 93% greater than 2011 and 85% above the 5-yr average. Peak abundance estimates for Lesser Scaup (+75%), Ring-necked Duck (+65%), Canvasback (+193), Ruddy Duck (+83%), Common Goldeneye (+1,288%) and Bufflehead (+70%) were greater in 2012 than 2011, whereas estimates for Redhead (-100%) were less in 2012 than 2011 (Table 1).

In the CMRV, diving duck abundance peaked on 27 December in 2012 at 179,585; this was 69% greater than 2011 and 73% greater than the 5-yr average (Table 1; Fig. 4). Excepting Redhead (-53%) and Common Goldeneye (-17%), peak estimates for all diving duck species inventoried in the CMRV were greater in 2012 than 2011 (Lesser Scaup [+58%], Ring-necked Duck [+102%], Canvasback [+94%], Ruddy Duck [+6%] and Bufflehead [2%]; Table 1).

Use-day estimates for total ducks were greater in the IRV and CMRV in 2012 than 2011 (+31% and +34%, respectively; Table 1). In the IRV, estimated use-days for 5 of 8 dabbling duck species were greater in 2012