

## **Briefing on the USA National Phenology Network's Wildlife Phenology Program**

**Introduction** – The development of the Wildlife Phenology Program (WPP) began in November 2008 as a collaborative effort of the USA National Phenology Network (USA-NPN), The Wildlife Society (TWS), USGS, and U.S. Fish and Wildlife Service. The program encourages observers to submit new and historical observations of animal phenology, including bird migrations, frog calling, and butterfly emergence. The WPP is accessible to a wide range of observers, from beginners to professionals and has been seamlessly integrated with the existing USA-NPN Plant Phenology Program.

**Partnerships** – A critical aspect of the WPP is the establishment of partnerships with existing monitoring programs, management agencies, researchers, educators, and other stakeholders. We have established partnerships with key organizations, such as the Association for Fish and Wildlife Agencies, Cornell Lab of Ornithology, National Wildlife Federation, and many other organizations, monitoring programs, and individuals. In addition, we have begun integrating our program with other complementary programs. For example, we are in the process of incorporating the innovative USGS North American Bird Phenology Program—which houses a 90-year continental-scale record of bird migration times—into the WPP.

**Species selection** – In partnership with NatureServe, we developed criteria for selecting species to monitor and an initial list of species. The criteria and species list underwent an extensive external review that involved over 100 experts. Based on the reviews, we selected 60 species to begin monitoring in March 2010 and an additional 100 to start monitoring in autumn 2010. Ultimately, we plan to encourage the observation of even more species, including species, such as endangered and dangerous species, selected for monitoring by professionals.

**Protocol development** – We have worked with NatureServe, existing monitoring programs, and other experts to develop protocols for observing species. Like our species selection process, our protocols have undergone an extensive external review. Our protocols are designed to be flexible for use by beginners and professionals. The protocols also facilitate the integration of newly collected data with most historical phenological data sets and data collected by existing phenology monitoring programs, such as eBird, Frogwatch USA, and Project Butterfly WINGS.

**Pilots** – We are pursuing pilot programs to test our observation protocols and investigate how they might be best implemented in park and refuge settings. In the Northeast, we are working with the National Park Service (NPS) to test the integration of novice and professional-level observations for a variety of national park audiences, including staff, trained volunteers, untrained volunteers, and K-12 students. We are developing methods to use these data to inform other park vital signs already being monitored by NPS. We plan to expand this pilot in 2010 to include several additional federal and state agencies and nongovernmental organizations. In Alaska, we are collaborating with the U.S. Fish and Wildlife Service to test methods by which staff and volunteers can monitor the phenology of key food chains on wildlife refuges.

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