

US EPA ARCHIVE DOCUMENT



BIRDS IN AGRICULTURAL AREAS

Overview

Although the most publicized use of agriculture by birds is that of pest species foraging on corn, rice, and sunflowers, many non-pest species of birds use agricultural areas for nesting, foraging, and roosting. Birds are increasingly using agricultural settings as mankind continues to destroy native habitat. Approximately 1 billion pounds of pesticides are applied annually in agricultural areas in the U.S. resulting in the exposure of millions of birds each year. Pesticides can cause mortality and sub-lethal effects including increased predation, reduced breeding success, physical malformations, mutations, and impaired ability to migrate. For these reasons, EPA uses birds as a primary indicator species for determining pesticide impacts on wildlife, but often the data required to make an informed assessment are in unpublished reports or fragmented among many different literature sources. This results in time consuming and labor intensive searches to determine possible exposure risk.

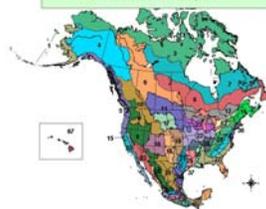


The Birds in Agricultural Areas (BIAA) project will identify the extent to which bird species in North America utilize agricultural environments both geographically and seasonally as primary or incidental habitat for foraging, breeding, cover, or roosting. The primary purpose of this project is to provide EPA, state wildlife agencies, agricultural companies, industry, and farmers with a risk assessment tool to use in assessing risk to birds when registering or considering the use of pesticides. Secondary uses are many and include understanding avian diversity in agricultural areas, determining avian friendly conservation efforts in agricultural areas, and determining future research needs for birds in agricultural areas.

Design

The Birds in Agricultural Areas tool will be designed in Microsoft Access and will be readily accessible over the internet to allow the broadest use possible. All major crops grown in North America will be included.

North American Bird Conservation Initiative
Bird Conservation Regions



Geographic data will include state or province and Bird Conservation Region (BCR) as defined by the North American Bird Conservation Initiative (NABCI). These data will be compiled into a database with fully cited references to aid in future research.

The database will be developed through an extensive review of the literature, including, but not limited to, books, scientific journals, and published and unpublished reports from both government and non-government sources. Data will be combined with conservation status indicators for each species including the Endangered Species Act Listings, American Bird Conservancy's Green List, and the NABCI species assessment values. Through internet access, users can search on a variety of fields (species, crop, state, BCR, etc.) and generate query based reports such as this one for the Black-capped Chickadee.

Species	State	BCR	Date
Black-capped Chickadee	Virginia	Virginia	2004
Black-capped Chickadee	North Carolina	North Carolina	2004
Black-capped Chickadee	South Carolina	South Carolina	2004
Black-capped Chickadee	Georgia	Georgia	2004
Black-capped Chickadee	Florida	Florida	2004
Black-capped Chickadee	Alabama	Alabama	2004
Black-capped Chickadee	Mississippi	Mississippi	2004
Black-capped Chickadee	Louisiana	Louisiana	2004
Black-capped Chickadee	Arkansas	Arkansas	2004
Black-capped Chickadee	Missouri	Missouri	2004
Black-capped Chickadee	Iowa	Iowa	2004
Black-capped Chickadee	Illinois	Illinois	2004
Black-capped Chickadee	Indiana	Indiana	2004
Black-capped Chickadee	Ohio	Ohio	2004
Black-capped Chickadee	Michigan	Michigan	2004
Black-capped Chickadee	Wisconsin	Wisconsin	2004
Black-capped Chickadee	Minnesota	Minnesota	2004
Black-capped Chickadee	Nebraska	Nebraska	2004
Black-capped Chickadee	Kansas	Kansas	2004
Black-capped Chickadee	Oklahoma	Oklahoma	2004
Black-capped Chickadee	Texas	Texas	2004
Black-capped Chickadee	New Mexico	New Mexico	2004
Black-capped Chickadee	Arizona	Arizona	2004
Black-capped Chickadee	California	California	2004
Black-capped Chickadee	Idaho	Idaho	2004
Black-capped Chickadee	Montana	Montana	2004
Black-capped Chickadee	Wyoming	Wyoming	2004
Black-capped Chickadee	Utah	Utah	2004
Black-capped Chickadee	Colorado	Colorado	2004
Black-capped Chickadee	Wyoming	Wyoming	2004
Black-capped Chickadee	Montana	Montana	2004
Black-capped Chickadee	North Dakota	North Dakota	2004
Black-capped Chickadee	South Dakota	South Dakota	2004
Black-capped Chickadee	Nebraska	Nebraska	2004
Black-capped Chickadee	Kansas	Kansas	2004
Black-capped Chickadee	Oklahoma	Oklahoma	2004
Black-capped Chickadee	Texas	Texas	2004
Black-capped Chickadee	New Mexico	New Mexico	2004
Black-capped Chickadee	Arizona	Arizona	2004
Black-capped Chickadee	California	California	2004
Black-capped Chickadee	Idaho	Idaho	2004
Black-capped Chickadee	Montana	Montana	2004
Black-capped Chickadee	Wyoming	Wyoming	2004
Black-capped Chickadee	Utah	Utah	2004
Black-capped Chickadee	Colorado	Colorado	2004
Black-capped Chickadee	Wyoming	Wyoming	2004
Black-capped Chickadee	Montana	Montana	2004
Black-capped Chickadee	North Dakota	North Dakota	2004
Black-capped Chickadee	South Dakota	South Dakota	2004
Black-capped Chickadee	Nebraska	Nebraska	2004
Black-capped Chickadee	Kansas	Kansas	2004
Black-capped Chickadee	Oklahoma	Oklahoma	2004
Black-capped Chickadee	Texas	Texas	2004
Black-capped Chickadee	New Mexico	New Mexico	2004
Black-capped Chickadee	Arizona	Arizona	2004
Black-capped Chickadee	California	California	2004
Black-capped Chickadee	Idaho	Idaho	2004
Black-capped Chickadee	Montana	Montana	2004
Black-capped Chickadee	Wyoming	Wyoming	2004
Black-capped Chickadee	Utah	Utah	2004
Black-capped Chickadee	Colorado	Colorado	2004
Black-capped Chickadee	Wyoming	Wyoming	2004
Black-capped Chickadee	Montana	Montana	2004
Black-capped Chickadee	North Dakota	North Dakota	2004
Black-capped Chickadee	South Dakota	South Dakota	2004
Black-capped Chickadee	Nebraska	Nebraska	2004
Black-capped Chickadee	Kansas	Kansas	2004
Black-capped Chickadee	Oklahoma	Oklahoma	2004
Black-capped Chickadee	Texas	Texas	2004
Black-capped Chickadee	New Mexico	New Mexico	2004
Black-capped Chickadee	Arizona	Arizona	2004
Black-capped Chickadee	California	California	2004
Black-capped Chickadee	Idaho	Idaho	2004
Black-capped Chickadee	Montana	Montana	2004
Black-capped Chickadee	Wyoming	Wyoming	2004
Black-capped Chickadee	Utah	Utah	2004
Black-capped Chickadee	Colorado	Colorado	2004
Black-capped Chickadee	Wyoming	Wyoming	2004
Black-capped Chickadee	Montana	Montana	2004
Black-capped Chickadee	North Dakota	North Dakota	2004
Black-capped Chickadee	South Dakota	South Dakota	2004
Black-capped Chickadee	Nebraska	Nebraska	2004
Black-capped Chickadee	Kansas	Kansas	2004
Black-capped Chickadee	Oklahoma	Oklahoma	2004
Black-capped Chickadee	Texas	Texas	2004
Black-capped Chickadee	New Mexico	New Mexico	2004
Black-capped Chickadee	Arizona	Arizona	2004
Black-capped Chickadee	California	California	2004
Black-capped Chickadee	Idaho	Idaho	2004
Black-capped Chickadee	Montana	Montana	2004
Black-capped Chickadee	Wyoming	Wyoming	2004
Black-capped Chickadee	Utah	Utah	2004
Black-capped Chickadee	Colorado	Colorado	2004
Black-capped Chickadee	Wyoming	Wyoming	2004
Black-capped Chickadee	Montana	Montana	2004
Black-capped Chickadee	North Dakota	North Dakota	2004
Black-capped Chickadee	South Dakota	South Dakota	2004
Black-capped Chickadee	Nebraska	Nebraska	2004
Black-capped Chickadee	Kansas	Kansas	2004
Black-capped Chickadee	Oklahoma	Oklahoma	2004
Black-capped Chickadee	Texas	Texas	2004
Black-capped Chickadee	New Mexico	New Mexico	2004
Black-capped Chickadee	Arizona	Arizona	2004
Black-capped Chickadee	California	California	2004
Black-capped Chickadee	Idaho	Idaho	2004
Black-capped Chickadee	Montana	Montana	2004
Black-capped Chickadee	Wyoming	Wyoming	2004
Black-capped Chickadee	Utah	Utah	2004
Black-capped Chickadee	Colorado	Colorado	2004
Black-capped Chickadee	Wyoming	Wyoming	2004
Black-capped Chickadee	Montana	Montana	2004
Black-capped Chickadee	North Dakota	North Dakota	2004
Black-capped Chickadee	South Dakota	South Dakota	2004
Black-capped Chickadee	Nebraska	Nebraska	2004
Black-capped Chickadee	Kansas	Kansas	2004
Black-capped Chickadee	Oklahoma	Oklahoma	2004
Black-capped Chickadee	Texas	Texas	2004
Black-capped Chickadee	New Mexico	New Mexico	2004
Black-capped Chickadee	Arizona	Arizona	2004
Black-capped Chickadee	California	California	2004
Black-capped Chickadee	Idaho	Idaho	2004
Black-capped Chickadee	Montana	Montana	2004
Black-capped Chickadee	Wyoming	Wyoming	2004
Black-capped Chickadee	Utah	Utah	2004
Black-capped Chickadee	Colorado	Colorado	2004
Black-capped Chickadee	Wyoming	Wyoming	2004
Black-capped Chickadee	Montana	Montana	2004
Black-capped Chickadee	North Dakota	North Dakota	2004
Black-capped Chickadee	South Dakota	South Dakota	2004
Black-capped Chickadee	Nebraska	Nebraska	2004
Black-capped Chickadee	Kansas	Kansas	2004
Black-capped Chickadee	Oklahoma	Oklahoma	2004
Black-capped Chickadee	Texas	Texas	2004
Black-capped Chickadee	New Mexico	New Mexico	2004
Black-capped Chickadee	Arizona	Arizona	2004
Black-capped Chickadee	California	California	2004
Black-capped Chickadee	Idaho	Idaho	2004
Black-capped Chickadee	Montana	Montana	2004
Black-capped Chickadee	Wyoming	Wyoming	2004
Black-capped Chickadee	Utah	Utah	2004
Black-capped Chickadee	Colorado	Colorado	2004
Black-capped Chickadee	Wyoming	Wyoming	2004
Black-capped Chickadee	Montana	Montana	2004
Black-capped Chickadee	North Dakota	North Dakota	2004
Black-capped Chickadee	South Dakota	South Dakota	2004
Black-capped Chickadee	Nebraska	Nebraska	2004
Black-capped Chickadee	Kansas	Kansas	2004
Black-capped Chickadee	Oklahoma	Oklahoma	2004
Black-capped Chickadee	Texas	Texas	2004
Black-capped Chickadee	New Mexico	New Mexico	2004
Black-capped Chickadee	Arizona	Arizona	2004
Black-capped Chickadee	California	California	2004
Black-capped Chickadee	Idaho	Idaho	2004
Black-capped Chickadee	Montana	Montana	2004
Black-capped Chickadee	Wyoming	Wyoming	2004
Black-capped Chickadee	Utah	Utah	2004
Black-capped Chickadee	Colorado	Colorado	2004
Black-capped Chickadee	Wyoming	Wyoming	2004
Black-capped Chickadee	Montana	Montana	2004
Black-capped Chickadee	North Dakota	North Dakota	2004
Black-capped Chickadee	South Dakota	South Dakota	2004
Black-capped Chickadee	Nebraska	Nebraska	2004
Black-capped Chickadee	Kansas	Kansas	2004
Black-capped Chickadee	Oklahoma	Oklahoma	2004
Black-capped Chickadee	Texas	Texas	2004
Black-capped Chickadee	New Mexico	New Mexico	2004
Black-capped Chickadee	Arizona	Arizona	2004
Black-capped Chickadee	California	California	2004
Black-capped Chickadee	Idaho	Idaho	2004
Black-capped Chickadee	Montana	Montana	2004
Black-capped Chickadee	Wyoming	Wyoming	2004
Black-capped Chickadee	Utah	Utah	2004
Black-capped Chickadee	Colorado	Colorado	2004
Black-capped Chickadee	Wyoming	Wyoming	2004
Black-capped Chickadee	Montana	Montana	2004
Black-capped Chickadee	North Dakota	North Dakota	2004
Black-capped Chickadee	South Dakota	South Dakota	2004
Black-capped Chickadee	Nebraska	Nebraska	2004
Black-capped Chickadee	Kansas	Kansas	2004
Black-capped Chickadee	Oklahoma	Oklahoma	2004
Black-capped Chickadee	Texas	Texas	2004
Black-capped Chickadee	New Mexico	New Mexico	2004
Black-capped Chickadee	Arizona	Arizona	2004
Black-capped Chickadee	California	California	2004
Black-capped Chickadee	Idaho	Idaho	2004
Black-capped Chickadee	Montana	Montana	2004
Black-capped Chickadee	Wyoming	Wyoming	2004
Black-capped Chickadee	Utah	Utah	2004
Black-capped Chickadee	Colorado	Colorado	2004
Black-capped Chickadee	Wyoming	Wyoming	2004
Black-capped Chickadee	Montana	Montana	2004
Black-capped Chickadee	North Dakota	North Dakota	2004
Black-capped Chickadee	South Dakota	South Dakota	2004
Black-capped Chickadee	Nebraska	Nebraska	2004
Black-capped Chickadee	Kansas	Kansas	2004
Black-capped Chickadee	Oklahoma	Oklahoma	2004
Black-capped Chickadee	Texas	Texas	2004
Black-capped Chickadee	New Mexico	New Mexico	2004
Black-capped Chickadee	Arizona	Arizona	2004
Black-capped Chickadee	California	California	2004
Black-capped Chickadee	Idaho	Idaho	2004
Black-capped Chickadee	Montana	Montana	2004
Black-capped Chickadee	Wyoming	Wyoming	2004
Black-capped Chickadee	Utah	Utah	2004
Black-capped Chickadee	Colorado	Colorado	2004
Black-capped Chickadee	Wyoming	Wyoming	2004
Black-capped Chickadee	Montana	Montana	2004
Black-capped Chickadee	North Dakota	North Dakota	2004
Black-capped Chickadee	South Dakota	South Dakota	2004
Black-capped Chickadee	Nebraska	Nebraska	2004
Black-capped Chickadee	Kansas	Kansas	2004
Black-capped Chickadee	Oklahoma	Oklahoma	2004
Black-capped Chickadee	Texas	Texas	2004
Black-capped Chickadee	New Mexico	New Mexico	2004
Black-capped Chickadee	Arizona	Arizona	2004
Black-capped Chickadee	California	California	2004
Black-capped Chickadee	Idaho	Idaho	2004
Black-capped Chickadee	Montana	Montana	2004
Black-capped Chickadee	Wyoming	Wyoming	2004
Black-capped Chickadee	Utah	Utah	2004
Black-capped Chickadee	Colorado	Colorado	2004
Black-capped Chickadee	Wyoming	Wyoming	2004
Black-capped Chickadee	Montana	Montana	2004
Black-capped Chickadee	North Dakota	North Dakota	2004
Black-capped Chickadee	South Dakota	South Dakota	2004
Black-capped Chickadee	Nebraska	Nebraska	2004
Black-capped Chickadee	Kansas	Kansas	2004
Black-capped Chickadee	Oklahoma	Oklahoma	2004
Black-capped Chickadee	Texas	Texas	2004
Black-capped Chickadee	New Mexico	New Mexico	2004
Black-capped Chickadee	Arizona	Arizona	2004
Black-capped Chickadee	California	California	2004
Black-capped Chickadee	Idaho	Idaho	2004
Black-capped Chickadee	Montana	Montana	2004
Black-capped Chickadee	Wyoming	Wyoming	2004
Black-capped Chickadee	Utah	Utah	2004
Black-capped Chickadee	Colorado	Colorado	2004
Black-capped Chickadee	Wyoming	Wyoming	2004
Black-capped Chickadee	Montana	Montana	2004
Black-capped Chickadee	North Dakota	North Dakota	2004
Black-capped Chickadee	South Dakota	South Dakota	2004
Black-capped Chickadee	Nebraska	Nebraska	2004
Black-capped Chickadee	Kansas	Kansas	2004
Black-capped Chickadee	Oklahoma	Oklahoma	2004
Black-capped Chickadee	Texas	Texas	2004
Black-capped Chickadee	New Mexico	New Mexico	2004
Black-capped Chickadee	Arizona	Arizona	2004
Black-capped Chickadee	California	California	2004
Black-capped Chickadee	Idaho	Idaho	2004
Black-capped Chickadee	Montana	Montana	2004
Black-capped Chickadee	Wyoming	Wyoming	2004
Black-capped Chickadee	Utah	Utah	2004
Black-capped Chickadee	Colorado	Colorado	2004
Black-capped Chickadee	Wyoming	Wyoming	2004
Black-capped Chickadee	Montana	Montana	2004
Black-capped Chickadee	North Dakota	North Dakota	2004
Black-capped Chickadee	South Dakota	South Dakota	2004
Black-capped Chickadee	Nebraska	Nebraska	2004
Black-capped Chickadee	Kansas	Kansas	2004
Black-capped Chickadee	Oklahoma	Oklahoma	2004
Black-capped Chickadee	Texas	Texas	2004
Black-capped Chickadee	New Mexico	New Mexico	2004
Black-capped Chickadee	Arizona	Arizona	2004
Black-capped Chickadee	California	California	2004
Black-capped Chickadee	Idaho	Idaho	2004
Black-capped Chickadee	Montana	Montana	2004
Black-capped Chickadee	Wyoming	Wyoming	2004
Black-capped Chickadee	Utah	Utah	2004
Black-capped Chickadee	Colorado	Colorado	2004
Black-capped Chickadee	Wyoming	Wyoming	2004
Black-capped Chickadee	Montana	Montana	2004
Black-capped Chickadee	North Dakota	North Dakota	2004
Black-capped Chickadee	South Dakota	South Dakota	2004
Black-capped Chickadee	Nebraska	Nebraska	2004
Black-capped Chickadee	Kansas	Kansas	2004
Black-capped Chickadee	Oklahoma	Oklahoma	2004
Black-capped Chickadee	Texas	Texas	2004
Black-capped Chickadee	New Mexico	New Mexico	2004
Black-capped Chickadee	Arizona	Arizona	2004
Black-capped Chickadee	California	California	2004
Black-capped Chickadee	Idaho	Idaho	2004
Black-capped Chickadee	Montana	Montana	2004
Black-capped Chickadee	Wyoming	Wyoming	2004
Black-capped Chickadee	Utah	Utah	2004
Black-capped Chickadee	Colorado	Colorado	2004
Black-capped Chickadee	Wyoming	Wyoming	2004
Black-capped Chickadee	Montana	Montana	2004
Black-capped Chickadee	North Dakota	North Dakota	2004
Black-capped Chickadee	South Dakota	South Dakota	2004
Black-capped Chickadee	Nebraska	Nebraska	2004
Black-capped Chickadee	Kansas	Kansas	2004
Black-capped Chickadee	Oklahoma	Oklahoma	2004
Black-capped Chickadee	Texas	Texas	2004
Black-capped Chickadee	New Mexico	New Mexico	2004
Black-capped Chickadee	Arizona	Arizona	2004
Black-capped Chickadee	California	California	2004
Black-capped Chickadee	Idaho	Idaho	2004
Black-capped Chickadee	Montana	Montana	2004
Black-capped Chickadee	Wyoming	Wyoming	2004
Black-capped Chickadee	Utah	Utah	2004
Black-capped Chickadee	Colorado		