

**Applying Radar Technology to Migratory Bird
Conservation and Management:
Strengthening and Expanding a Collaborative Effort**

USGS-USFWS Workshop Agenda

24 – 26 October 2006
The Nativo Lodge
Albuquerque, New Mexico

Tuesday, 24 October 2006

- 7:30 – 8:00 a.m. Workshop Sign In
- 8:00 – 8:30 a.m. **WELCOME TO WORKSHOP**
- Rick Kearney (USGS HQ, Program Director, Wildlife and Terrestrial Resources, Reston, Va.)
- Al Manville (USFWS HQ, Senior Wildlife Biologist, Arlington, Va.)
- 8:30 – 9:00 a.m. **INTRODUCTION TO THE WORKSHOP**
- Radar as a Tool to Fulfill Research Needs – Partnering with our Stakeholders** – Al Manville (USFWS HQ)
- History of the USGS-USFWS “Radar Collaborative” and Goals/Focus of the Workshop** - Janet Ruth (USGS Fort Collins Science Center)
- 9:00 – 10:00 a.m. **Primer on Radar Biology and Applications to Conservation Issues**
- Ron Larkin (University of Illinois, Champaign-Urbana, Ill.)
- 10:00 – 10:30 a.m. Break

- 10:30 - 12:15 p.m. **CURRENT RADAR RESEARCH I**
Moderator: Robb Diehl (University of Southern Mississippi, Hattiesburg, Miss.)
- Broad-Scale Habitat Relations for Birds** - Wylie Barrow (USGS National Wetlands Research Center, Lafayette, La.)
- Nocturnal Migration through the Appalachians, with Stopovers on Lower Delmarva** - Deanna Dawson (USGS Patuxent Wildlife Research Center, Laurel, Md.)
- Regional Structure in Migratory Patterns across the Southwest** - Robb Diehl (University of Southern Mississippi, Hattiesburg, Miss.)
- Can Artificial Intelligence Be Used to Detect Birds in NEXRAD Data?** - Rick Sojda (USGS Northern Rocky Mountain Science Center, Bozeman, Mont.)
- Incorporating NEXRAD Weather Radar into Migration Studies in the Upper Mississippi River System** - Pat Heglund (USGS Upper Mississippi Environmental Sciences Center, La Crosse, Wis.)
- 12:15 – 1:45 p.m. Lunch
- 1:45 – 3:30 p.m. **CURRENT RADAR RESEARCH II**
- The Quantification of Bird Migration using Vertically Pointing Fixed-Beam Radar and Thermal Imaging Camera** - Sid Gauthreaux (Clemson University, Clemson, S.C.)
- Applications of Pencil-Beam and Tracking Radar to Understanding Flying Biota** - Ron Larkin (University of Illinois, Champaign-Urbana, Ill.)
- The "Superfledermaus" Radar, from Military Use to Basic and Applied Research** - Bruno Bruderer (Swiss Ornithological Institute)
1 hour
- 3:30 – 4:00 p.m. Break
- 4:00 – 4:45 p.m. **CURRENT RADAR RESEARCH III**
- Application of WSR-88D to Quantify Bird Distributions during Migratory Stopover** - Jeff Buler (University of Southern Mississippi, Ph.D. student), Wilmington, Del.)

Characterizing Bird and Bat Movement Patterns Using Portable X-Band Radar - David Mizrahi (New Jersey Audubon, Cape May, N.J.)

- 4:45 – 5:15 p.m. **IDENTIFICATION OF KEY QUESTIONS AND ISSUES**
Plenary Session
Facilitator: Janet Ruth (USGS Fort Collins Science Center)
- 5:15 p.m. Adjourn until Banquet
- 6:30 – 8:00 p.m. **BANQUET with Keynote Speaker**
Radar Ornithology: The Past, Present, and Future—A
Personal Viewpoint - Sid Gauthreaux (Clemson University,
Clemson, S.C.)

Wednesday, 25 October 2006

- 8:00 – 9:30 a.m. **CURRENT RADAR RESEARCH IV AND OTHER OPPORTUNITIES**
Moderator: Robb Diehl
- Wildlife Radar Research and Development** - Adam Kelly (DeTect, Inc., Panama City, Fla.)
- Past, Present, and Future Uses of Radar for Studying Bats**
- Paul Cryan (USGS, Fort Collins Science Center, Colo.)
- NEXRAD Program Update** - Tim Crum (NOAA), (presented by Terry Schuur [NOAA])
- Detection of Birds and Insects with a Polarimetric WSR-88D Radar**
- Terry Schuur (NOAA, National Severe Storms Lab, Norman, Okla.)
- 9:30 – 10:00 a.m. **PRESENTATION REVIEW**
Plenary Session
Facilitator: Janet Ruth
- 10:00 – 10:30 a.m. Break
- 10:30 – 12:00 p.m. **KEY ISSUES, NEEDS, AND QUESTIONS FOR A RADAR COLLABORATIVE** – Plenary Session
Facilitator: Janet Ruth
- 12:00 – 1:30 p.m. Lunch

- 1:30 – 3:00 p.m. **KEY ISSUES, NEEDS, AND QUESTIONS (cont.)**
– Plenary Session
Facilitator: Janet Ruth
- 3:00 – 3:30 p.m. Break
- 3:30 – 5:00 p.m. **KEY ISSUES, NEEDS, AND QUESTIONS (cont.) and
IDENTIFICATION OF KEY ACTION ITEMS FOR A RADAR
COLLABORATIVE - Plenary Session**
Facilitator: Janet Ruth
- 5:00 p.m. Adjourn for the day

Thursday, 26 October 2006

- 8:00 – 8:45 a.m. **PERSONAL IMPRESSIONS AND OBSERVATIONS FROM THE
WORKSHOP: Common Themes and Visions for the Future**
- Robb Diehl (University of Southern Mississippi)
- Tom Will (USFWS Region 3)
- 8:45 – 10:00 a.m. **WHERE DO WE GO FROM HERE? WORKSHOP ACTION
ITEMS AND RECOMMENDATIONS - Plenary Session**
Facilitator: Janet Ruth
- 10:00 – 10:30 a.m. Break
- 10:30 – 11:30 a.m. **WHERE DO WE GO FROM HERE? (Cont.)**
- 11:30 a.m. – 12:00 **WRAP-UP**
- 12:00 p.m. **ADJOURN**