

## Oil Sands Monitoring (OSM)

### 2016-2017 PROJECT PLAN SUMMARY

<b>Project Name:</b>	<b>B1-1-3 Landbird Monitoring: Effects Assessment and Status and Trends</b>
<b>Type of Project:</b>	Long term Monitoring
<b>Delivery Agent:</b>	ECCC/ U of A
<b>Project Contact:</b>	Judith Toms (ECCC) - judith.toms@canada.ca Erin Bayne (U of A) - bayne@ualberta.ca
<b>Budget:</b>	\$ 912,872

#### Project Description:

The project focuses on three priority areas: 1) ensuring that rare and threatened species are well covered by status and trend monitoring efforts, 2) developing models of land bird responses to multiple disturbances, and 3) the use of targeted cause-effect studies to understand why physical disturbance affects land bird populations. The initial focus is on quantifying the physical footprint of oil sands development because human disturbance has been identified as the most influential driver affecting land birds in the oil sands region. This project is a collaboration between ECCC, the Boreal Avian Modelling (BAM) Project based at the University of Alberta (UofA), and the Alberta Biodiversity Monitoring Institute (ABMI).

#### Project Objectives:

- Ensure adequate status and trend monitoring is conducted for priority land bird species
- Compare existing models of the response of land bird populations to energy sector and other disturbances, and augment existing approaches to integrate data from new technologies into models.
- Conduct targeted studies to improve our assessment of oil sands impacts on land birds.

#### Key Outcomes:

Results will be used to:

- Assess the need for and refine targeted trend monitoring programs for species of conservation concern,
- Increase understanding of the mechanisms by which land birds respond to energy sector activities, and
- Improve landscape-level cumulative effect models. In turn, results and models generated can be used to evaluate impacts of land-use practices and inform decision-making.

#### Geographic Scope:

Athabasca, Cold Lake and Peace Oils Sands Areas covering major bitumen deposits in Alberta as defined by the Alberta Energy Regulator

#### Associated Data and Reports:

All data and their associated metadata are uploaded to the JOSM portal. Automated Recoding Units (ARU) data are stored on servers at the University of Alberta. The old-forest species data are stored on a standardized SQL server database. Reports include:

- Draft report on 2016 cause-effect field season.
- Report on power analysis to assess adequacy of existing monitoring for listed, rare and difficult to monitor species.