ACES 2014 Morning Workshop 8 Agenda December 8, 2014 | 8:00am-11:30am

Modeling Species Banking at a Landscape-Scale

Organizer: Douglas Bruggeman, Ecological Services & Markets

Note: All workshop participants must provide their own Windows PC laptop in order to participate in this workshop.

40 min Characterizing a landscape-perspective for tradable credits

- What is a landscape perspective?
- When is a landscape perspective appropriate?
- How do aspects of natural history relate to tradable credits?
- How are source/sink dynamics germane?
- How can different dispersal behaviors be represented?
- Modeling techniques: metapopulation models, matrix population models, and individually-based, spatially explicit population models
- Questions & discussion

50 min Applying Individual-based Models to species banking for the Red-cockaded Woodpecker

- How habitat defragmentation credits can be estimated using population genetic theory
- How the value of trades can be evaluated using counterfactual evidence
- Questions & discussion

30 min Break – 9:30-10:00am

90 min Work with open source software: Martix-LEA

- Gain experience with modeling techniques for spatially structured populations
- Please bring your PC laptop. A thumb drive will be provided that contains software
 to perform GIS and spatial modeling of populations. Your computer need not have
 any GIS software installed prior to the workshop it will be on the thumb drive. The
 software may not work on Mac, but you can follow along with facilitators and/or
 choose a partner
- Using a hypothetical species, we will work through a hypothetical trading scenario that incorporates landscape-scale processes and analyzes source-sink dynamics
- Discussion / Lessons Learned