Integrating Complementarity and Landscape Analysis Using Site Specific Information and Vegetation Cover
Stephen P. Hall and Michael P. Schafale
NC Natural Heritage Program, Division of Parks and Recreation

Introduction:

Southern North Carolina is a biogeographically rich region where human population and the rate of development have increased rapidly. Ecological integrity and agricultural productivity, however, are threatened by a variety of human and natural processes. The study area includes two major ecological provinces: the Coastal Plain and the Piedmont. This paper focuses on the Coastal Plain region, which is characterized by its unique natural history and the presence of a variety of rare and endangered species.

Methods:

Data used in the analysis include:
- the effects of land use practices on the distribution of species
- the effects of climate change on the distribution of species
- the effects of human activities on the distribution of species

Determination of Conservation Priorities:

The use of guilds allowed us to assess the conservation significance of different sites as core areas or connectors. Twenty-two indicator guilds were identified as the conservation targets in the landscape analysis. For each guild, a set of core areas was identified as being the best examples of the guild's habitat requirements. Sites are rated for their potential contribution to a complementary set that will support the long-term survival of the element. Sites are ranked based on regional, state, and national significance of species and plant communities that they support and the significance of areas to indicator animal guilds.

Survey Needs:

Several species, including several vertebrates, are at risk of extinction and are considered to be of high priority for conservation efforts. These species are, for example, the longleaf pine, the Florida scrub-jay, and the American alligator. The study area is known for its high biodiversity and the presence of many rare and endangered species.

Landscape analysis using guilds:

The use of guilds allowed us to assess the conservation significance of different sites as core areas or connectors. Twenty-two indicator guilds were identified as the conservation targets in the landscape analysis. For each guild, a set of core areas was identified as being the best examples of the guild's habitat requirements. Sites are rated for their potential contribution to a complementary set that will support the long-term survival of the element. Sites are ranked based on regional, state, and national significance of species and plant communities that they support and the significance of areas to indicator animal guilds.

Survey Needs:

The use of guilds allowed us to assess the conservation significance of different sites as core areas or connectors. Twenty-two indicator guilds were identified as the conservation targets in the landscape analysis. For each guild, a set of core areas was identified as being the best examples of the guild's habitat requirements. Sites are rated for their potential contribution to a complementary set that will support the long-term survival of the element. Sites are ranked based on regional, state, and national significance of species and plant communities that they support and the significance of areas to indicator animal guilds.

Survey Needs:

The use of guilds allowed us to assess the conservation significance of different sites as core areas or connectors. Twenty-two indicator guilds were identified as the conservation targets in the landscape analysis. For each guild, a set of core areas was identified as being the best examples of the guild's habitat requirements. Sites are rated for their potential contribution to a complementary set that will support the long-term survival of the element. Sites are ranked based on regional, state, and national significance of species and plant communities that they support and the significance of areas to indicator animal guilds.

Survey Needs:

The use of guilds allowed us to assess the conservation significance of different sites as core areas or connectors. Twenty-two indicator guilds were identified as the conservation targets in the landscape analysis. For each guild, a set of core areas was identified as being the best examples of the guild's habitat requirements. Sites are rated for their potential contribution to a complementary set that will support the long-term survival of the element. Sites are ranked based on regional, state, and national significance of species and plant communities that they support and the significance of areas to indicator animal guilds.

Survey Needs:

The use of guilds allowed us to assess the conservation significance of different sites as core areas or connectors. Twenty-two indicator guilds were identified as the conservation targets in the landscape analysis. For each guild, a set of core areas was identified as being the best examples of the guild's habitat requirements. Sites are rated for their potential contribution to a complementary set that will support the long-term survival of the element. Sites are ranked based on regional, state, and national significance of species and plant communities that they support and the significance of areas to indicator animal guilds.

Survey Needs:

The use of guilds allowed us to assess the conservation significance of different sites as core areas or connectors. Twenty-two indicator guilds were identified as the conservation targets in the landscape analysis. For each guild, a set of core areas was identified as being the best examples of the guild's habitat requirements. Sites are rated for their potential contribution to a complementary set that will support the long-term survival of the element. Sites are ranked based on regional, state, and national significance of species and plant communities that they support and the significance of areas to indicator animal guilds.

Survey Needs:

The use of guilds allowed us to assess the conservation significance of different sites as core areas or connectors. Twenty-two indicator guilds were identified as the conservation targets in the landscape analysis. For each guild, a set of core areas was identified as being the best examples of the guild's habitat requirements. Sites are rated for their potential contribution to a complementary set that will support the long-term survival of the element. Sites are ranked based on regional, state, and national significance of species and plant communities that they support and the significance of areas to indicator animal guilds.

Survey Needs:

The use of guilds allowed us to assess the conservation significance of different sites as core areas or connectors. Twenty-two indicator guilds were identified as the conservation targets in the landscape analysis. For each guild, a set of core areas was identified as being the best examples of the guild's habitat requirements. Sites are rated for their potential contribution to a complementary set that will support the long-term survival of the element. Sites are ranked based on regional, state, and national significance of species and plant communities that they support and the significance of areas to indicator animal guilds.

Survey Needs:

The use of guilds allowed us to assess the conservation significance of different sites as core areas or connectors. Twenty-two indicator guilds were identified as the conservation targets in the landscape analysis. For each guild, a set of core areas was identified as being the best examples of the guild's habitat requirements. Sites are rated for their potential contribution to a complementary set that will support the long-term survival of the element. Sites are ranked based on regional, state, and national significance of species and plant communities that they support and the significance of areas to indicator animal guilds.

Survey Needs:

The use of guilds allowed us to assess the conservation significance of different sites as core areas or connectors. Twenty-two indicator guilds were identified as the conservation targets in the landscape analysis. For each guild, a set of core areas was identified as being the best examples of the guild's habitat requirements. Sites are rated for their potential contribution to a complementary set that will support the long-term survival of the element. Sites are ranked based on regional, state, and national significance of species and plant communities that they support and the significance of areas to indicator animal guilds.

Survey Needs:

The use of guilds allowed us to assess the conservation significance of different sites as core areas or connectors. Twenty-two indicator guilds were identified as the conservation targets in the landscape analysis. For each guild, a set of core areas was identified as being the best examples of the guild's habitat requirements. Sites are rated for their potential contribution to a complementary set that will support the long-term survival of the element. Sites are ranked based on regional, state, and national significance of species and plant communities that they support and the significance of areas to indicator animal guilds.

Survey Needs:

The use of guilds allowed us to assess the conservation significance of different sites as core areas or connectors. Twenty-two indicator guilds were identified as the conservation targets in the landscape analysis. For each guild, a set of core areas was identified as being the best examples of the guild's habitat requirements. Sites are rated for their potential contribution to a complementary set that will support the long-term survival of the element. Sites are ranked based on regional, state, and national significance of species and plant communities that they support and the significance of areas to indicator animal guilds.