PRACTICAL WILDLIFE MANAGEMENT INFORMATION

WILDLIFE TRENDS
SOUTHEASTERN EDITION

September 2002 *Volume 2, Issue 9*

Weeds, Bugs and Broods

by Clay Sisson, Steven Yates, Lee Stribling and Dan Speake

Anyone who has been around quail hunting for a while knows quite well that any given season's quail crop is made up largely of birds that were hatched and raised the previous summer. Sixty-five to 85 percent of the fall/winter population will be made up of birds experiencing their first hunting season, while only 15 to 35 percent will be adults. The reason for this is that quail populations have what biologists call a high "turnover rate." This means that quail populations undergo a high rate of annual mortality and, therefore, must reproduce abundantly every summer to build the population back up for that fall. The reason for this discussion is to point out just how vital each year's reproduction is to that fall's hunting season. An often overlooked aspect of quail management is providing quality brood habitat. When most hunters take to the field, they are concerned with the type of food and cover the birds are using in the fall and winter. Little thought is given to where those birds were raised, even though that is largely what will determine the quality of their hunting season.

A great deal of research has been done on the food habitats and nutritional requirements of quail broods. It has been demonstrated quite clearly that young chicks rely heavily on insects to meet the high protein requirements of fast early growth. Studies in several states have investigated insect abundance in different habitat types and under different management schemes. Very few studies, however, have been conducted regarding actual habitat use by quail broods in the piney woods and fields of the deep south. In the last 10 years, advancements in radiotelemetry technology have allowed researchers to go places we've never been before; and that includes unlocking some of the mysteries of bobwhite brood habitat. Few previous studies have radio-tracked adult quail with broods in the Southeastern Coastal Plains.

In 1982, researchers from Auburn reported a preference for small cultivated feed patches by 12 hens with broods in Alabama. In 1993, after studying 22 broods in North Florida, Tall Timbers researchers reported that brood-rearing areas tended to be recently burned upland pine woods. In August of 1995, the Southeast Quail Study Group was formed and held its first meeting. One issue discussed by this group of biologists, researchers and managers was what topics were in need of further research in the Southeast. Listed as the number one research priority was brood habitat and survival.

As part of a large, comprehensive study of quail biology, management and hunting, called the "Albany Quail Management Project", personnel of Auburn University's School of Forestry and Wildlife Science have been intensively investigating bobwhite brood habitat use for the past several years on two large plantations near Albany in Southwest Georgia. One of our primary objectives has been to examine habitat use by a large sample of brook-rearing adult bobwhites, and to compare insect abundance in these areas to other habitat types. This article will report and give results on various aspects of our research.

Two of our study areas are Pineland and Nilo Plantations, which together encompass 31,000 acres south of Albany, Georgia. The habitat on these two plantations consists of mature pine forests maintained in an open condition by a long history of frequent prescribed burning interspersed with a network of small fields and woodland "bird patches." The field networks are maintained by a system of rotational farming of corn and seasonal discing in October. The discing maintains the fallow portions of these fields in a "weedy" condition consisting primarily of common ragweed and partridge peas. Corn strips are planted on alternate sides of the fields each year so that each field has a diversity of year's corn, the current year's corn and fallow land. Small feed patches are planted in late spring or early summer throughout the pine woodlands and usually consist of grain sorghum, brown top millet or corn. Both plantations are highly productive and support some of the highest quail densities in the South.

Since the inception of the Albany Quail Management Project in the spring of 1992, our field staff

In this Issue

Visit us at
www.wildlifetrends.com

Call us at
1-800-441-6826