

seeds, and greens all play a role in feeding habits. In crowded situations they have been observed around cattle feeding areas where waste grain had been introduced with mixed feed and with hay. Here they were observed to dig into manure and we assumed that large undigested agricultural grains had attracted them. In one instance an adult male was observed to scratch through fairly fresh manure in the early fall before supplemental cattle feeding began. The largest particle size available here was the relatively small seed of dallis and vasey grass.

The best we can do with any untried exotic is to carefully catalog his native habitat and then to attempt to match that with a habitat we have where a species is needed. If a relatively small fraction of these educated guesses turn out well we can learn from our failures and build on our successes.

The black francolin has earned careful consideration for future work. We should be ready for competent research biologists to make full time studies of the black francolin that result from the initial trials. Further work is needed with hatchery rearing techniques and massive releases of good hatchery reared stock should be a next logical step in our investigations.

In Louisiana a shortage of trained personnel has hampered our follow-up studies. We look forward to an improvement of this situation and hope to carry our portion of the work necessary to determine if we are to accept or reject this candidate for citizenship.

## THE JAPANESE GREEN AND KALIJ PHEASANTS IN VIRGINIA

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One species of the pheasant group that has shown good progress in limited stockings in Virginia, but has received little recognition in other sections of the Southeast is the Japanese green, *P. c. versicolor*. Its introduction was made in 1959 when approximately 30 birds were received at the Virginia Game Farm from the wilds of Japan. All of these birds were held for game farm breeding, resulting in the production of a sufficient number for the first release in the fall of 1960.

Early information on the species indicated that its range type was extensive agriculture interspersed with woodlots and wetlands and similar to types found in many sections along the coastal areas of Eastern Virginia. This is not meant to imply that its range is limited to this type, and studies now indicate that it may extend even into the Piedmont regions. Other states experimenting with the species include Georgia, Tennessee and Ohio. Recent requests for stock has come from Indiana and Idaho. Further studies are needed before positive recommendations can be made.

At this time Virginia's stockings are limited to the coastal areas of the state. Stockings of all groups in Virginia are widely separated to avoid an overlap of range and the first area selected for the Japanese green was on Virginia's Eastern Shore. This is a two-county area separated from the mainland by the Chesapeake Bay and bounded on the East by the Atlantic Ocean and on the North by the State of Maryland.

Diversified farming is the pattern of agriculture and truck crops such as tomatoes, asparagus, string beans, sweet potatoes and some strawberries are grown. Other crops are corn, soy beans and small grain. Livestock grazing is low in most areas. Timber harvest has been extensive over the years and much of the timberland is cut over or is young growing forests, much of which supports high populations of native upland game species.

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Being aware of the truck crop operations there was some hesitancy in stocking pheasants for fear of possible destruction to truck crops, despite many requests that the area be considered as one of the state's experimental areas. To avoid later criticism, should such a condition arise, meetings were held with agricultural groups and key individuals of the two counties, and this possibility was explained to them. It was clearly pointed out that the outcome was not known, but they should be aware of the possibility. Everyone contacted was in favor of the experiment and insisted that the stockings be made. Two types of areas were selected, one in a corn, small grain and soy bean section and the other in strictly a truck crop area. Stockings were made in the order listed:

Area I is in Accomac County along the shore of the Chesapeake Bay where large acreages of corn, soy beans and small grain are grown. Fields are broken up by hedgerows, wood lots and in many cases wet or marsh areas not suited for agriculture. In the fall of 1960, 204 birds were stocked. A close check was kept on these birds and winter survival appeared good. 161 additional birds were released in March, 1961, and 220 in September of the same year, bringing the total to 585 for the area. Although the area is very difficult to census, the first breeding season revealed a good number of broods, and indications that the adult birds were holding in the area with normal dispersal up to 5-6 miles. Two breeding seasons since have shown comparable results and the population seems to be established and on an increase. Three crowing counts made between April 15-23, revealed a total of 251 calls, or an average of 8.4 calls for each check point. The highest count was on April 23, when a total of 99 calls were heard, or an average of 9.9. Three breeding seasons with 585 birds is too short for the time needed to fully evaluate the area, but encouraging progress is evident and further studies will be made with great anticipation. Two more years should be quite revealing, and success or failure should be determined.

Area II is in Northampton County where large acreages of truck crops are grown. Like area I, this is on the Chesapeake Bay side of the Peninsula and is also broken up by hedgerows, wood lots and marshes. The first release was made on this area in September, 1961, with 240 birds. A normal winter followed and a check was made with dogs in late March of the following year at which time 36% of the birds were flushed in 2½ hours. Brood checks made in July of the same year were most encouraging with six broods averaging 4.9 birds each, being observed despite the heavy cover that prevails at that time. 271 additional birds were released in September of that year, bringing the total for the area to 511. Cock crowing counts made on April 27, May 4, and May 30, totaled 339 or an average of 11.3 calls for each check point. The highest count was on May 4, when 159 calls were heard or an average of 15.9 for the ten-stop route. Only two breeding seasons have occurred here and more time is needed, but indications now are most encouraging and success appears almost a certainty. Dispersal has been normal and movements have been reported up to 8-10 miles, with highest concentration in a radius of five miles from point of release.

Two new areas were selected on the mainland in Lancaster and Northumberland Counties in 1962, with releases in the fall of that year and in the spring of 1963. The Lancaster County site is comparable to the Accomac County area on the Eastern Shore and a total of 600 birds were stocked in September, 1962. No further stockings are currently planned since excellent winter survival was indicated by cock crowing counts made this year.

Brood counts are also reported in good numbers by farmers in the area. The Northumberland County site is slightly different in range only. It is somewhat drier than the others, although it is near the western shore of the Chesapeake Bay. Some grazing is done in this area, but large acreages of corn, soy beans and some grain are grown. Multiflora rose hedges are numerous and adjacent hay fields afford excellent nesting sites. 309 birds were stocked in the spring of 1963 with an encouraging number of broods reported. Approximately 300 additional birds will be released here in the 1963 fall stocking season.

In many respects this species shows promise of being one of the better groups for many sections of the Southeast. As has been pointed out a reliable evaluation would be premature at this time, but progress looks good and two or three more years should show what may be expected.

The newest arrival of the pheasant group to Virginia is the white crested kali, *lophura leucomelana hamiltoni*, and comes from the Southern flank of the Himalayas range of India and Pakistan at elevations from 2,000 to 8,000 feet. Its native range is rough and rugged and snowfall is light. Scientific Report—Wildlife No. 62, by Bump and Bohl, covers in detail much information on the species that cannot be included in this report due to limited time and space.

The first shipment of birds to arrive in Virginia was in 1961, and a successful game farm program was set up from which a substantial number were held for game farm breeding and 138 birds were stocked in April, 1963. The release was made in a rugged type range in the Jefferson National Forest in Giles County at an elevation of approximately 3,000 feet, and to keep a check on the birds in this dense mountain county is a very difficult task. The game manager on the area and timber operators working the range report that adult birds are being seen over a radius of five miles from point of release, but only one brood has been observed, and this moved into heavy cover so quickly that a count could not be made.

These circumstances prompted the Virginia Game Commission to explore the possibilities of the transistor radio technique for checking. From information that was available it appeared that such a system would be practical, and might also reveal information that would otherwise take months, and possibly years to accumulate.

Transmitters of suitable size and reasonable life expectancy were developed and receivers were built to recommended specifications. It was found by field check that the receivers were not satisfactory, being incapable of picking up the signals for a distance that would be practical in the study. This type had to be abandoned and a different unit is being developed. The one that now shows promise can be used in a twofold manner, in which the signals can be received and also used for communication by the operators. The details of this construction are not yet available, but favorable tests have been made indicating its possibilities as quite satisfactory. More tests are necessary and any developments on this operation will be made available to anyone interested in this type of study. It is expected that these units will be ready for use when the 1963 fall releases are made and may reveal valuable information on movement and survival of the birds. Another test will be made on a group of hens to be released just prior to the spring breeding season in an effort to obtain information on nesting and possibly brood checks which might otherwise be a long and difficult task to accomplish.

## 1963 REPORT OF THE FARM GAME COMMITTEE SOUTHEASTERN SECTION — THE WILDLIFE SOCIETY

The Farm Game Committee met in Montgomery, Alabama, August 20 and 21, 1963. Members in attendance were: Lee K. Nelson, Kentucky Department of Fish and Wildlife Resources; Dr. Lloyd G. Webb, Clemson College and South Carolina Wildlife Resources Department; Pete Farrar, Southeastern Field Representative, National Wildlife Federation; and Edward G. Sullivan, U. S. Soil Conservation Service, Mississippi. Robert W. Murray, Florida Game and Freshwater Fish Commission, was not able to attend the meeting but did make valuable contributions by letter.

The first order of business was to review and discuss the Farm Game Committee reports of the past several years. This was a revealing task. A number of facts are evident and should be pointed out.

We have discussed activities, collected data, sent out questionnaires,