NORTHERN BOBWHITE AND SCALED QUAIL ABUNDANCE AND HARVEST REGULATION IN TEXAS

MARKUS J. PETERSON[1], Texas Parks and Wildlife Department, 210 Nagle Hall, College Station, TX 77843-2258

Abstract: Since 1978, scaled quail (Callipepla squamata) abundance declined (P <0.02) in the Edwards Plateau, Rolling Plains, and Trans-Pecos physiographic regions of Texas. Northern bobwhite (Colinus virginianus) abundance also decreased (P <0.02) during this period in the Gulf Prairies and the Cross Timbers. I found no trends (P >0.17) in bobwhite abundance in the South Texas Plains, Edwards Plateau, and Rolling Plains or for scaled quail in South Texas. Reducing the daily bag limit from 15 to 8 quail would probably only decrease the harvest of bobwhite and scaled quail in Texas by 27 and 15%, respectively. Because some hunters harvest more quail per day than others do, an 8-quail daily bag limit would impact a smaller proportion of quail hunters (11 and 7% for bobwhite and scaled quail, respectively). Changes in daily bag limits are regressive because they restrict harvest most when restrictions are least needed, yet decrease harvest least when restriction might by helpful. For example, a 6-quail daily bag limit would reduce bobwhite and scaled quail harvest by 52 and 35% and 43 and 16% during a quail "boom" and "bust" year, respectively. Because <10% of Texas quail hunters spend >12 days in the field, small reductions in the season length would not be expected to alter harvest. A 4- or 6-week hunting season, however, might decrease the number of days hunters spend in the field and the related number of quail harvested. Because quail harvest becomes increasing additive to natural mortality as the hunting season progresses, eliminating hunting late in the season should effectively reduce quail harvest if hunters typically take significant numbers of quail during this period. For regulatory changes to affect quail population dynamics, they must alter the number of quail available to breed. All other regulatory changes are made for sociological reasons. It is likely that the only way to reverse declines in Texas quail abundance is to increase the quantity of space quail can use throughout the year. For this reason, "quick fixes," such as minor regulatory changes, are unlikely to be of value by themselves.

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[1] Present address: Department of Wildlife and Fisheries Sciences, Texas A&M University, College Station, TX 77843-2258.