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A Case Study of Pressure and Politics

Dr. Clait E. Braun

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History of Ruffed Grouse in Colorado

A Case Study of Pressure and Politics

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ABSTRACT

Ruffed Grouse (*Bonasa umbellus*) were not documented (no specimen records) in Colorado until 1988. All prior observation reports were poorly documented and were thought to be Dusky Grouse (*Dendragapus obscurus*) or possibly Columbian Sharp-tailed Grouse (*Tympanuchus phasianellus columbianus*). Interest in releasing Ruffed Grouse in Colorado was generated from outside of the State by a private individual and then by hunters within Colorado. These individuals were encouraged by The Ruffed Grouse Society to persuade staff of the Colorado Division of Wildlife to support releases of wild-trapped Ruffed Grouse in Colorado. The official position of the Colorado Wildlife Commission at that time was to not allow release of ‘non-native’ species unless such releases complied with the written policy that **“non-native species will be introduced only when sufficient investigations are made to insure that non-native species will not have an adverse impact on a habitat that is occupied by a native species; is ecologically suitable for the environment where it will be released; will be contained within the boundaries of the state; and there is proven biological or social demand for the species.”** The Colorado Wildlife Commission passed a new policy in 1992 to allow release of Ruffed Grouse into Colorado. This led to conflict with the U.S. Forest Service (USFS) which was implementing a new policy of ecosystem management in Colorado. Legal action resulted in the USFS withdrawing approval of releases of Ruffed Grouse on National Forests in Colorado in 1994. Colorado (now the Colorado Division of Parks and Wildlife [CPW]) initiated a plan in 2014 to release Ruffed Grouse in Colorado on State lands. Thirty-four Ruffed Grouse captured in Utah were released on a State Wildlife Area in northwestern Colorado

during Fall 2016 (25 birds) and 2017 (9 birds).

INTRODUCTION

Eight species of grouse (Tetraoninae) have been documented in Colorado. These include Dusky Grouse (*Dendragapus obscurus*) (Marsh 1931, Bailey and Niedrach 1965), Greater Sage-Grouse (*Centrocercus urophasianus*), (Marsh 1931, Bailey and Niedrach 1965), Gunnison Sage-Grouse (*C. minimus*) (Young et al. 2000), Greater Prairie-Chicken (*Typanuchus cupido*) (Marsh 1931, Bailey and Niedrach 1965), Lesser Prairie-Chicken (*T. pallidicinctus*) (Lincoln 1917), Sharp-tailed Grouse (Plains, *Typanuchus phasianellus jamesi* [Cooke 1897, 1909] and Columbian, *T. p. columbianus*) (Marsh 1931, Bailey and Niedrach 1965), White-tailed Ptarmigan (*Lagopus leucura*) (Marsh 1931, Bailey and Niedrach 1965), and Ruffed Grouse (*Bonasa umbellus*) (Braun et al. 2003). The objectives of the present paper are (1) to report the available information about the historical status of Ruffed Grouse in Colorado based on the literature and (2) summarize the actions of those who supported and opposed introducing Ruffed Grouse in Colorado based on records in the files of C. E. Braun (now on file in the Research Library of Colorado Parks and Wildlife, Fort Collins).

HISTORICAL REVIEW OF THE COLORADO RUFFED GROUSE LITERATURE

Ruffed Grouse were thought to occur in Colorado as there were a number of unsupported sight records (Cooke 1898, Sclater 1912). Cooke (1898) mentioned that a single bird had been collected from a small flock south of Denver in December 1894 and that others were seen on 3 January 1898 near Sweetwater Lake in Garfield County. The AOU Check-list (1957) included northwestern Colorado in the range of Ruffed Grouse, but more specific references (Aldrich and Duvall 1955, Aldrich 1963) did not. Bailey and Niedrach (1965:254) were unable to locate specimens of Ruffed Grouse from Colorado but suggested “it is probable that a few dwell in the rough country adjacent to the Utah line.” Reported ‘sightings’ exist for La Plata County (1947; Reddall 1976), Larimer County (1899; Cooke 1900), and Montrose County (1948; Bailey

and Niedrach 1965). More recently (1971), one was reported from Routt County (Martin et al. 1974). Hoffman and Braun (1978) reviewed the available information on Ruffed Grouse in Colorado and concluded that all reported Colorado observations were Dusky Grouse or Sharp-tailed Grouse as there were no specimen records prior to 1988. Accidental collection of a Ruffed Grouse by a hunter occurred in Fall 1988 on Hoy Mountain in Moffat County less than 1 km from the Utah State line. Efforts in Fall 1989 resulted in collection of two more Ruffed Grouse from the same area on Hoy Mountain. All three birds (AHY male, AHY female, HY male) were prepared as study skins and deposited in the Denver Museum of Nature and Science (Braun et al. 2003). Field investigations indicated the habitat on the upper area of Hoy Mountain was suitable for Ruffed Grouse and this habitat extended into Utah. It did not extend east, south or north in Colorado as those habitats were mostly dominated by sagebrush (*Artemisia* spp.) and Pinon-Juniper (*Pinus* spp.-*Juniperus* spp.). Intensive studies of Greater Sage-Grouse and wing collections from hunters to the south on Blue Mountain and north on Cold Spring Mountain in the 1980s-1990s revealed no presence of Ruffed Grouse.

THE RUFFED GROUSE CONTROVERSY

1970's

Interest in introducing Ruffed Grouse into Colorado is not recent as W. W. Sandfort, Chief of Wildlife Management for the Colorado Division of Wildlife (names, affiliation, and position of each person referenced in the text are in **Appendix C**) responded to G. W. Gullion of the University of Minnesota, and a leader in The Ruffed Grouse Society of North America, (Letter: 4 February 1974) that Colorado was “highly interested in introducing the gray Ruffed Grouse” and requested assistance. I responded (Letter: 11 February 1974) to Gullion and questioned Sandfort’s statement of Colorado’s interest citing J. W. Aldrich’s (1963) paper about Ruffed Grouse range retraction at the southern end of the present distribution. I also questioned if

there was suitable habitat for Ruffed Grouse in Colorado. Gullion responded (Letter: 14 February 1974) to the effect that he suspected “something is lacking in Colorado.” He cited the successful establishment of Ruffed Grouse in a limited area (Ruby Mountains) in Nevada in the early 1960’s. Gullion suggested a small effort of “one or two releases of a dozen or so birds” would be worthwhile but also “a gamble”. I responded to Gullion (Letter: 20 February 1974) to the effect that I was “not violently opposed to moving native species around” but was concerned with how little we knew about our native grouse and how they live in habitats in Colorado. W. W. Sandfort (Letter: 21 February 1974) responded to G. W. Gullion to the effect there “would be little to gain in the overall grouse resource” from a transplant of Ruffed Grouse into habitats in Colorado occupied by Blue Grouse (now Dusky Grouse but Blue Grouse is used throughout this paper as that was the accepted name throughout the period involved). Sandfort indicated Ruffed Grouse were of low priority but in-state transportation could be arranged if Gullion came to Colorado. Gullion responded to W. W. Sandfort (Letter: 4 March 1974) indicating intensive management of aspen (*Populus tremuloides*) would improve the potential for Ruffed Grouse in Colorado. Gullion went on to indicate that “a couple of miles of hostile habitat is ample to prevent dispersal” as Ruffed Grouse are “weak-flighted birds” (see Palmer 1962). Gullion (Letter: 29 July 1974) asked about my reservations against introducing Ruffed Grouse after he visited sites in the Apache-Sitgreaves National Forest in Arizona which he considered as having potential for Ruffed Grouse (there are no Ruffed Grouse in Arizona to this day, 14 January 2020). I responded (Letter: 3 September 1974) and questioned the need for another species of grouse to hunt in Colorado as I considered the strong populations of Blue Grouse in the state as underharvested. I also speculated about competition for the same niche by Ruffed and Blue Grouse in the same habitats. Also of concern was the possible need for continued habitat

disturbance to benefit Ruffed Grouse. I invited Gullion to come to Colorado to look at habitats used by Blue Grouse in the state.

I had a call from a hunter (Jerry Cebula) on 2 February 1976 about introducing Ruffed Grouse and responded (Letter: 2 February 1976) that I was not overly interested in diluting “our thin effort on native grouse” as I was concerned about pressing needs for small game and grouse research in Colorado. I subsequently (Memo: 13 February 1976) provided information to W. W. Sandfort and listed 6 questions (**Appendix A**) to be answered when considering introductions of Ruffed Grouse. W. W. Sandfort responded (Memo: 15 March 1976 to the effect “there are no definite plans to introduce Ruffed Grouse into Colorado and that “such plans will not be developed without full discussions and coordinated decisions in the Division.”

Correspondence with G. W. Gullion about Ruffed Grouse continued in 1977. Gullion (Letter: 14 June 1977) revealed arrangements had been made with the U.S. Forest Service (Rocky Mountain Region) to examine “the possibility of developing Ruffed Grouse habitat in some areas in Colorado and Wyoming.” Gullion was supported by the U.S. Forest Service (USFS) and Louisiana-Pacific in their efforts to increase commercial use of aspen in the western U.S., especially in Arizona, Colorado, Utah, and Wyoming. I responded to Gullion (Letter: 17 June 1977) discussing the recent interest of the USFS in management of aspen and indicated CDOW would likely be reluctant to get involved with large scale programs of aspen manipulation until the results could be predicted. G. W. Gullion, R. W. Hoffman (Wildlife Researcher, CDOW), and I met in the field in Colorado on 8 August 1977 as requested by Gullion. We spent one day examining occupied Blue Grouse habitat north of Eagle near Castle Peak. This trip was followed on 3 November 1977 (Letter: G. W. Gullion) in which I concurred that “manipulation of aspen must occur if we are to maintain both aspen and wildlife.” Gullion responded (Letter: 29 November 1977) referencing a report (not found) he prepared for the

USFS “about the potential for ruffs in your country.”

G. W. Gullion (Letter: 24 July 1978) in reference to a male grouse using a log for display near Stoner, north of Dolores, Colorado indicated the male turned out to be a Blue Grouse. Gullion indicated “some nearby country there is as suitable now for ruffs as any occupied habitat in Utah.” He also identified potential habitat for Ruffed Grouse in the Gunnison-Grand Mesa and San Juan National Forests and had plans to work in the Pike-San Isabel, Routt, and Arapahoe-Roosevelt National Forests. I responded (Letter: 18 August 1978) and mentioned our optimism about the aspen manipulation program initiated by the USFS in Colorado as it holds promise for Blue Grouse.

Gullion and I continued our correspondence in 1979 (Letter: 4 September) to the effect that he spent most of his time that year in Wyoming. He mentioned sites in the Routt National Forest that “should be ready for ruffs in 1985 to 1989.” G. W. Gullion followed with a letter (23 October 1979) to Jack R. Grieb, Director of the CDOW, in which he suggests “you should seriously consider getting Utah and Wyoming Ruffed Grouse for your coverts.” He also asserted that “you currently have acceptable habitats for low density Ruffed Grouse populations (perhaps a pair per 20 to 40 acres)” and that “you have many hundreds of thousands of acres of unoccupied habitat...” He mentioned multiple specific areas in Colorado as having acceptable habitat for Ruffed Grouse. This message from Gullion was followed by a Memo (1 November 1979) from H. Donoho (who at that time was a Staff Biologist, CDOW) to CEB with a suggested response from J. R. Grieb to G. W. Gullion. I edited the draft letter to G. W. Gullion for the Director’s signature and returned it to H. Donoho with a brief cover letter on 5 November 1979. The gist of the draft letter was the Colorado Wildlife Commission had a written policy that **“non-native species will be introduced only when sufficient investigations are made to insure that non-native species will not have an adverse impact on a habitat that is occupied by a native species; is ecologically suitable for the environment where it will be released;**

will be contained within the boundaries of the state; and there is proven biological or social demand for the species”. This led to mention of not having sufficient information about the potential impact of Ruffed Grouse in habitats occupied by native species such as Blue Grouse and Columbian Sharp-tailed Grouse. There was also mention of current studies on Blue Grouse in Colorado, and public demand. Gullion in a letter (7 November 1979) to Rick Hoffman discussed possible misidentification of young female Blue Grouse as Ruffed Grouse in Colorado and Wyoming. He further repeated his comments about “so much good habitat in Colorado---that is vacant---that sure needs to be filled.” I responded to G. W. Gullion (Letter: 19 November 1979) in which I thanked him for several tail fans and mentioned his letter to Director J. R. Grieb. The Director sent a short letter (12 December 1979) to G. W. Gullion thanking him for his recommendations about possibilities for introduction of Ruffed Grouse into Colorado and that consideration will be given to his proposal and Ruffed Grouse in the future.

1980's

I received an inquiry (Letter: 26 April 1984) about regulations for Ruffed Grouse hunting in Colorado from Stephen DeStefano and D. H. Rusch of the Cooperative Wildlife Research Unit at the University of Wisconsin. I responded (Letter: 1 May 1984) that Colorado had no Ruffed Grouse at the present and had no hunting regulations for the species. I also mentioned that Colorado had “no plans to introduce this species.”

I responded (Letter: 8 January 1985) to a verbal inquiry from Charlie Meyers (Outdoor Writer) of the Denver Post about introducing Ruffed Grouse into Colorado. Mention was made of the interest of some in introducing the species into Colorado and the problem with ecological barriers, unsuitable habitats, and competition with Blue Grouse. A letter from G. W. Gullion (11 February 1985) to Robert Towry, Southwest Regional Wildlife Manager of the CDOW in Montrose concerning Ruffed Grouse in Colorado was forwarded to me. Gullion reiterated “the time is ripe for releases’ of Ruffed Grouse near Mancos”... “and possibly along the Dolores

Canyon upriver from Dolores.” A message (17 September 1985) from Elaine Zieroth (Wildlife Biologist, USFS) to the USFS District Ranger in Mancos, Colorado reviewed recent comments of G. W. Gullion and also H. Donoho (CDOW, Montrose) and the interest of Louisiana-Pacific in harvesting aspen, and stated “I do not recommend completing any special Ruffed Grouse habitat improvements until we can convince the D.O.W. to introduce the species.”

I was asked to prepare a letter for the signature of James B. Ruch, Director of the CDOW, in response to a letter (5 March 1986) from M. W. Weber, an Ophthalmologist from Salida, Colorado. Weber mentioned his support for introducing Ruffed Grouse and a pledge of \$1,000 to help make it happen. His letter referenced past discussions and the benefits of an introduction program. I prepared a draft letter (died in Denver?) which apparently was not received by M. W. Weber. Thus, M. W. Weber sent a letter (12 January 1987) to a member of the Colorado Wildlife Commission (James Smith) noting he had not received a response. Weber followed with a phone call to J. B. Ruch, Director of the CDOW. I was again asked to prepare a letter to Weber for the Director’s signature. I resurrected and revised my previous draft as instructed and forwarded it to Denver with a date of 20 January. It was slightly modified and sent to Weber on 22 January 1987. This letter reviewed the past history of discussions about introductions of Ruffed Grouse into Colorado and the issues that were involved. Gordon W. Gullion responded (Letter: 26 February 1987) to a letter (19 February 1987) from Weber indicating he had served 3 summers as a consultant for the USFS followed by 2 years as a consultant for Louisiana-Pacific in Colorado and adjacent states. This work allowed him to review aspen habitats and their potential suitability in Colorado for Ruffed Grouse. M. W. Weber (Letter: 20 March 1987) responded to Director J. B. Ruch expressing interest in meeting with terrestrial biologists so he could present the information he received from G. W. Gullion. I received a memo (24 March 1987) from Jim Lipscomb, my supervisor in Denver, stating that “you are going to have to meet with Dr. Weber.” “The Region [Southeast] ([Stan] Olgilvie [Area Supervisor]) needs to be involved. Set

up the meeting as soon as possible and let me know so I can respond to Ed.” Ed was Ed Prenzlow, Assistant Director, CDOW.

A meeting was held in Salida on 15 March 1988 with 13 people in attendance (C. E. Braun Memo [29 March 1988] to Jim Lipscomb based on handwritten notes dated 15 March). Those present were Stan Olgilvie, Ron Dobson, Willie Travnicek, Rick Hoffman, and myself from the CDOW, Bruce Thomas and Barney Lyons of the USFS, Mark Weber, and 5 hunters. I started the meeting by reading the ‘official’ policy of the Wildlife Commission (dated 1979), followed by quotes from letters received from Gordon W. Gullion and then 10 points (**Appendix A**) to consider before moving forward on an introduction program (C. E. Braun Memo: 29 March 1988). This was followed by Mark Weber making 6 points (all listed in my Memo; 29 March 1988). Rick Hoffman also spoke and asked if hunters would actually hunt Ruffed Grouse given so few presently hunt Blue Grouse? Stan Olgilvie and Ron Dobson had no objection to introducing Ruffed Grouse but suggested it was low priority. Personnel of the USFS were ambivalent but noted that grazing of aspen reproduction was a problem. The hunters mentioned sporting qualities, availability of suitable habitats, and use of private funds. My analysis of introduction of Ruffed Grouse was that it was low priority. A properly done introduction could probably be successful in a limited area. To gain wide distribution of Ruffed Grouse in Colorado would be labor intensive, expensive, and take multiple transplants (100+) over a long period of years. Even then, densities would be low and active habitat management would be necessary. Gordon W. Gullion of the University of Minnesota had been the loudest and most persistent proponent and had created resentment with some agency personnel by pushing introductions with the USFS and now with private individuals. I recommended to Jim Lipscomb that we keep Ruffed Grouse on the back burner.

Everything changed when Bob Hernbrode of the CDOW shot a Ruffed Grouse on Hoy Mountain on 24 October 1988 while hunting Blue Grouse. I was accurately quoted by Ed Dentry

in the Rocky Mountain News on 13 November 1988. “They are just a straggler in Colorado, a peripheral species.” Further, I indicated that “I don’t think the DOW has made up its mind what it’s going to do.” I further commented to Dentry in the same article that “establishing ruffs in discontinuous patches of habitat statewide would present expensive logistical problems—requiring hundreds of trapped, wild birds, too much manpower, and too much money.” “I’m not convinced right now that the hunter’s dollar would be best spent for Ruffed Grouse.” I sent a Memo with map (22 November 1988) to Jim Lipscomb (CDOW State Wildlife Manager) describing a work trip by Rick Hoffman, Tom Remington (CDOW Wildlife Researcher), and myself on 6-7 November 1988 to the area on Hoy Mountain in Moffat County where the Ruffed Grouse had been harvested on 24 October 1988. The location and general habitats where the bird was harvested were described as were the distances from Cold Spring Mountain and Blue Mountain where extensive studies of Sage-Grouse had been conducted (including wing collections from hunters). We observed numerous Blue Grouse but no Ruffed Grouse. I offered 6 alternatives and recommended Alternative 2 or 3.

1. Classify Ruffed Grouse as a game species and set season limits and bag/possession limits. This would probably not be palatable to the birding community.
2. Classify it as a game species but afford it no protection.
3. Consider it a peripheral species in the state; one that may be seen in Colorado once every 5-10 years (or more).
4. Classify it as a game species and allow it to be hunted in the aggregate with Blue Grouse. I did not favor this approach.
5. Classify it as an endangered/threatened species in the state and prepare a recovery plan to enhance its status by “re-introduction” into suitable habitats. I did not favor this approach.
6. Classify it as a game species and prepare plans to actively relocate it into suitable habitats throughout the state.

G. W. Gullion queried (Letter: 30 November 1988) R. A. Ryder of Colorado State University about the Ruffed Grouse collected on Hoy Mountain. His letter was forwarded to me for response. Basically he wanted to know more of the details. I responded on 14 December 1988

with a copy of my memo of 22 November 1988. I mentioned the specimen would be prepared as a study skin and that it was an adult male, gray phase. Mention was also made of how difficult the area was to access, it was not 'classical' Ruffed Grouse habitat, and that we planned to publish the information once we had opportunity to do more field exploration of Hoy Mountain.

I informed (Memo of 5 December 1988) Jim Lipscomb that I had met with Dale Strickland, Assistant Chief Game Warden for Wyoming Game and Fish at a meeting in Casper.

We discussed the possibility of obtaining wild-caught Ruffed Grouse in Wyoming for introduction to Colorado. Wyoming Game and Fish would likely approve a request but we would be responsible for costs. I estimated the costs for trapping 40 birds (minimum number for a release to be \$8,460 with at least two releases being necessary (total cost of \$16,920) using our personnel. Spring releases would be best as Fall releases would be mostly young of the year (easiest to capture, but with lowest expected survival). I also mentioned to Lipscomb my perception of priorities for the Upland Bird Program had not changed.

1990's

Interest in introducing Ruffed Grouse continued in the 1990s. As a result I prepared a Memo (28 February 1990) that analyzed costs, potential competition, and proportion of Ruffed vs. Blue Grouse in the Fall harvest for several western states (**Appendix B**). Of note were questions about potential competition (citing 3 scientific publications), costs per transplant (>\$8,000/transplant, minimum of 2 releases per attempt), habitats preferred by both species, ratios of Ruffed to Blue Grouse by state in the harvest, and ability of hunters to identify in hand young of both species.

The public continued to be offered articles (Ed Dentry, Rocky Mountain News, 30 May 1990) and encouragement from Gordon W. Gullion of the University of Minnesota, The Ruffed Grouse Society (Dr. Samuel R. Pursglove Jr. from Pennsylvania), and Tom Dougherty of the National Wildlife Federation (Central Rocky Mountain Regional office). Dougherty (Letter of 24

July 1990) addressed to “Dear Ruffed Grouse Enthusiast” indicated support for introducing Ruffed Grouse as well as an organizational meeting in Denver on 13 August 1990.

This prompted me to prepare a 3-page handout (**Appendix B**) summarizing what the CDOW was doing concerning Ruffed Grouse. This handout was provided to those who attended the organizational meeting of Colorado Chapter of The Ruffed Grouse Society on 13 August 1990. I received a phone call from Len Carpenter (my supervisor) on 13 August 1990 relaying the thoughts of Director Perry Olson. The gist was that my statement reflected Division policy. Other employees of the CDOW should not publicly oppose the position of the Division. I represented the Division at the meeting. The main speakers were Tom Dougherty, Dr. Mark Weber, Rick Hoffman, and myself. There were many questions and those from Sam Pursglove, Mark Weber, and Tom Dougherty strongly suggested the Division was neglecting the will of the public. There were 20 people at the meeting but Weber indicated he had received 140 letters of support. I summarized the meeting in a 2-page Memo to Len Carpenter (14 August 1990). The gist of the meeting was to try to convince me I was wrong in my professional managerial judgment that Ruffed Grouse were of low priority for the CDOW. There were a number of ‘what if’ questions about which I declined to comment. At the urging of Dougherty and Pursglove, those present agreed to form a steering committee to:

1. Obtain signed petitions supporting introductions of Ruffed Grouse into Colorado,
2. Communicate with the CDOW,
3. Solicit support from sportsman and wildlife interest groups,
4. Solicit support from the business community including local chambers of commerce,
5. Make a presentation to the Colorado Wildlife Commission, and
6. Start a Ruffed Grouse Society Chapter (or 3-4 chapters; there were apparently 25-40 members at that time in Colorado).

I was convinced that no less than an active and extensive Ruffed Grouse introduction program would satisfy some of those present. It was also clear that some present would like to see me removed from my current role. The CDOW needed to move forward on the Upland Bird Plan

with consideration of how Ruffed Grouse are classified. It presently was not classified as game or nongame.

Tom Remington and Rick Hoffman sent a memo also on 14 August to Len Carpenter with their perspective that differed from Division policy and mis-stated what transpired in 1974 (correspondence from W. W. Sandfort). They pushed for openly advocating for introduction of Ruffed Grouse into Colorado. I responded (22 August 1990) in a 2-page memo to Len Carpenter concerning Tom and Rick's Memo of 14 August 1990 and discussed other pressing issues, including Rick's Blue Grouse density data from Middle Park and Eagle (28-34 and 22-29 males/mi²) indicating a spring density (males and females) of 52 to 68 birds/mi², which could support a harvest of 22-25% of the fall population, concerns about other species of grouse in Colorado, fragmented habitats, maintaining viable populations of Sage-Grouse, and the argument that Colorado needs additional small game hunter opportunity. I received a letter (16 August 1990) from M. W. Weber asking me to "get on board" as I was in a "no-win situation" and was "thwarting the will of thousands of sportsmen." I responded (24 August 1990) to the effect I was on board with a broad view and encouraged him to work with us on the developing Upland Bird Management Plan.

I formulated a 3-4 question survey (density data, wing collection data, aggregate or separate bag limits, releases, etc., for Ruffed and or Blue Grouse) that was sent (23 August 1990) to selected State Wildlife Agencies (California, Idaho, Missouri, Montana, Nevada, Oregon, Utah, Washington, Wyoming). All provided useful information (responses in files of C.E.B.) on most of the questions.

Bob Saile in an article in the Denver Post (28 October 1990) suggested the Ruffed Grouse debate was academic as the species was known to be in Colorado. He argued for more Ruffed Grouse (via transplants). Len Carpenter (Letter: 30 October 1990) responded to Mark W. Weber per a request from State Representative Ken Chlouber (Leadville) about the

status of Ruffed Grouse introductions in Colorado. Carpenter mentioned the Upland Bird Management and Research Guideline and stated “If the potential for a successful introduction is indicated, the Division will facilitate that desire.” Carpenter and I met on 1 November in the Fort Collins office of CDOW to discuss the status of Ruffed Grouse (game or nongame), if game, in aggregate with Blue Grouse, and possible changes in the present official policy. This discussion needed to wait for completion of the developing Upland Bird Plan as it was too early to make decisions. We also discussed how a program to introduce Ruffed Grouse might proceed as a well-designed experiment in a limited area with no hunting closures for Blue Grouse (hand written notes and personal dairy of CEB). I prepared a list of 4 alternatives (**Appendix A**) (Memo: 2 November 1990) for Len Carpenter and discussed each. Alternative # 1 would be the best option but was not viable politically. Alternative # 2 was second best. Alternative # 3 had problems no matter which bag/possession limit was selected. Alternative # 4 would force us to prepare a recovery plan for a peripheral species. I also reported the results of my survey of western states with sympatric populations of Blue and Ruffed Grouse.

I continued to be castigated in the press (Ed Dentry, Rocky Mountain News, 9 November 1990). I also received a copy of a letter and attachments of 26 November 1990 from M. W. Weber to Colorado Wildlife Commissioner William Hegberg castigating me as the main problem to introducing Ruffed Grouse into Colorado. On 4 December 1990, per a phone call from Len Carpenter, I was tasked to prepare a presentation for the next Wildlife Commission meeting to discuss the pros and cons of introducing Ruffed Grouse into Colorado. I was told not to take a position as the CDOW had not taken one on the issue. On 4 December, I sent letters to 5 people (Tom Dougherty, D. A. Hein, R. W. Hoffman, T. E. Remington, M. W. Weber) soliciting their views. The phone call of 4 December 1990 was followed by a memo (5 December) from Len Carpenter about my assignment. I received unsolicited letters from G. G. Asbury (10 December 1990) and C. A. Peterson (14 December 1990) of Gunnison, and Samuel

Gary and R. W. Williams (Letter: 18 December 1990) of Denver (all solicited by Tom Dougherty). I also received suggestions from D. A. Hein (Letter: 20 December 1990) and M. W. Weber (Letter: 21 December 1990). Three provided thoughtful and detailed suggestions to which I responded. Tom Remington and Rick Hoffman (Memo: 2 January 1991) also provided suggestions on the Pros and Cons of Ruffed Grouse transplants.

PROS AND CONS FOR INTRODUCING RUFFED GROUSE

As directed by Len Carpenter on 5 December 1990, I made a presentation on the pros and cons of introducing Ruffed Grouse in Colorado to the Wildlife Commission on 17 January 1991. The composite list was developed from multiple sources from which I had received suggestions and my knowledge based on science and experience. I also discussed Missouri's experience where reintroductions into historic range started in 1940-43, continued in 1959, and expanded in 1978. They had released >5,600 birds to date, with 1,900 more planned to be released at a minimum cost/bird of \$165.00. Their first hunting season was in 1983, with permit hunting only and, after the initial year, they averaged 736 permittees/year. The average annual harvest was 130 birds/year (Letter: 6 September 1990 from Ollie Torgerson, Chief, Wildlife Division, Missouri Department of Conservation). Also discussed were published comments by Gullion (1984:174) that Ruffed Grouse are not an "adaptable" species, and success (transplants) is only due to release in areas where "their rather narrow habitat tolerances" can be met. The Wildlife Commission noted that no decision had been made as of 16 January 1991 about introducing Ruffed Grouse into Colorado. Any decision would be through a 3-step process which is "not in process at this time." However, the Wildlife Commission of the State of Colorado approved classifying Ruffed Grouse as a Game species on 16 January 1991 with no open hunting season. The Wildlife Commission also supported an evaluation of the cost of introducing Ruffed Grouse as noted by Ed Dentry in the Rocky Mountain News on 7 January 1991. I thanked D. A. Hein (Letter of 18 January 1991) for his contributions to my presentation and summarized my

thoughts after the meeting with the Colorado Wildlife Commission.

Pros

1. Good public relations
2. Increase biodiversity
3. Catalyst for cooperation with public agencies
4. Increase hunter opportunity
5. Primarily on public lands
6. Sporting to hunt
7. Watchable wildlife value
8. Economically benefit mountain communities
9. Likely to coexist with Blue Grouse
10. Availability of transplant sources
11. Technical/financial assistance available
12. Increase harvest of Blue Grouse
13. Increase CDOW license sales and revenue
14. Habitat management will benefit other species

Cons

1. Diversion of CDOW resources
2. Single species management
3. Consequences of failure
4. Introduction of diseases/parasites
5. Competition with Blue Grouse
6. No vacant niche exists
7. Intensive forest management needed
8. Intensive livestock management needed
9. Aspen habitats are not suitable
10. Suitable habitats are widely scattered
11. Multiple transplants needed
12. Costly, \$8500/transplant (min = \$250/bird)
13. Have diverse grouse hunting opportunity at present
14. No net gain in hunter opportunity where needed
15. Temporarily restrict Blue Grouse hunting
16. Low densities would be expected
17. Establishment would be long slow process
18. Ethical opposition

Marty Stouffer (Letter of 11 April 1991), and my response (18 April 1991), and Stouffer's response (24 April 1991) offered support for releases in the Aspen (Colorado) area.

The Draft Upland Bird Management Guide was released in February 1992 and brought an offer (Letter: 4 March 1992) from Samuel R. Pursglove Jr. of The Ruffed Grouse Society of funds and technical advice “to expand the distribution of Ruffed Grouse in Colorado.” The Wildlife Commission on 12 March 1992 (Ed Dentry article in Rocky Mountain News) discussed if the range of Ruffed Grouse should be expanded with a decision to be considered at their July 1992 meeting. Letters were received from J. A. Masson (12 March 1992) and L. E. Case (20 March 1992). Michael J. Wynn (Letter of 30 March 1992 to Eldon Cooper, Chairman of the Colorado Wildlife Commission), supported Ruffed Grouse transplants but questioned the Division’s planning process. I was directed by Len Carpenter (my supervisor) in a memo on 3 April 1992 to prepare a draft letter to M. J. Wynn for the signature of the Chairman (Eldon Cooper) of the Wildlife Commission. This was done (Letter: 20 April 1992) and spelled out the responsibilities of the Wildlife Commission, and the Division of Wildlife. It also referenced the draft Upland Bird Guide. I prepared the initial drafts (9 April 1992) for a possible transplant program for Ruffed Grouse. The final ‘draft’ by Rick Hoffman, Tom Remington, and myself was released on 30 April 1992 of how a range expansion of Ruffed Grouse would proceed, if approved (Objective, Prerelease site selection/evaluation, Select capture sites, Test techniques, Capture and release of birds, and Post release evaluation) in years 1 and 2. We estimated costs for 3 alternatives in Year 1. I assigned Richard W. Hoffman, Wildlife Researcher, as the responsible person for work on Ruffed Grouse in May 1992 and he prepared a Study Plan: Experimental Range Expansion of Ruffed Grouse in Colorado (Undated 11-page document).

A proposed draft resolution to expand the distribution of Ruffed Grouse in Colorado was prepared for the 14 May 1992 Colorado Wildlife Commission meeting. Considerable correspondence was circulated from The Ruffed Grouse Society and members during June and July 1992. This included reference to Tom Remington who worked for the Colorado Division of Wildlife, but was not assigned to the proposed Ruffed Grouse experimental release. Some

assumptions (18 June 1992) of The Ruffed Grouse Society were not based on data and were wildly optimistic as were those they cited from Gordon W. Gullion. The first meeting to organize the Colorado Chapter of The Ruffed Grouse Society was scheduled for 7 July 1992 (Letter of 22 June 1992 from M. Wynn to Perry Olson, Director of the Colorado Division of Wildlife).

The Colorado Wildlife Commission unanimously approved (23 July 1992 in Fort Collins) a Resolution on Ruffed Grouse. The final amended motion (page 11) was “Be it therefore resolved that the Colorado Wildlife Commission supports the development of a program to expand the distribution of Ruffed Grouse into appropriate habitats in Colorado using wild-trapped stock from adjacent states following appropriate environmental analysis.” From 1974 (and possibly before), the policy of the Colorado Wildlife Commission had been to oppose the introduction of Ruffed Grouse into Colorado. This policy was based on its’ status as non-native and priorities. **I had supported this policy. As an employee of the Colorado Division of Wildlife, I supported the new policy of the Wildlife Commission.**

I prepared a letter (24 July 1992) that was sent to everyone (80 individuals) that had expressed interest in Ruffed Grouse inviting them to a Workshop on 1 August 1992 at the CDOW complex at 6060 Broadway in Denver starting at 10:00 AM to discuss possible alternatives for expanding the distribution of Ruffed Grouse. Rick Hoffman and I attended and responded to questions from those in attendance which included 11 non-CDOW people and 4 people from the CDOW. Marty Stouffer of Aspen responded (27 July 1992) with an offer of financial support for transplants in the Aspen, Colorado area. I (Letter: 7 August 1992) responded with my thoughts on the types of areas we would be considering for releases of Ruffed Grouse. The newly formed Colorado Chapter of The Ruffed Grouse Society announced their inaugural membership and fund-raising dinner to be held on 12 November 1992 with attendance limited to the “first 300 who sign up”. I attended this meeting and counted 60-70

people in attendance.

Mike Zgainer, Area Supervisor for the CDOW at Durango notified Len Carpenter on 10 December 1992 that “Ruffed Grouse transplant won’t fly in Mancos area” because of ‘Ecosystem Mgmt’ era and R.G. are not indigenous to the San Juans.” I responded (Memo of 16 December 1992) to the effect that “no releases will be made without the written approval of the appropriate U.S. Forest Service personnel and any other land owners that may be affected by the proposed releases.” However, we will continue planning until we receive written notice from the U.S. Forest that the proposed releases of Ruffed Grouse are not appropriate for a particular location, Forest, etc.” Rick Hoffman was informed by Paul H. Peck of the USFS, Mancos Ranger District, San Juan National Forest (Letter of 24 December 1992) that “Ruffed Grouse are not native to the San Juan National Forest.” Thus, “NEPA analysis on the Ruffed Grouse proposal should not proceed...” as it “could conflict with our emerging philosophy on ecosystem management.”

Correspondence (Letter: 5 January 1993) about possible sources of Ruffed Grouse for transplants continued from Tom Hinz of the Montana Department of Fish, Wildlife & Parks to Tom Lytle of the CDOW, and Tom Lytle to Rick Hoffman with Montana being unable to provide birds but with Idaho indicating they could be a source of transplant stock. Harry Harju, Assistant Division Chief, Wyoming Game and Fish Department (Letter: 22 February 1993 to Tom Lytle) also approved “capture **and transport** 40 Ruffed Grouse per year for two years.”

Phone discussions (13 January 1993) between Joan Freidlander of the USFS office in Denver and CEB indicated a possible Ruffed Grouse transplant would require NEPA. This phone discussion prompted a Memo (C. E. Braun to Len Carpenter on 13 January 1993) in which I indicated I had further discussions with Rick Hoffman and also Lee Upham of the BLM. The discussion involving the BLM revealed that agency also had a process to work through before any Ruffed Grouse could be released on lands managed by the BLM. Three recommendations

were included in the memo to Len Carpenter.

1. Proceed with the U.S. Forest Service as identified in the draft letter (13 January 1993) to Paul Peck.
2. Locate and examine potential release sites on BLM lands.
3. Ask private parties/individuals (The Ruffed Grouse Society) to talk with the U.S. Forest Service.

This memo further indicated that “One large problem that we have internally is that we have little support, other than Jim Olterman, from the Southwest Region or within the agency for spending time/money on Ruffed Grouse transplants. Most people perceive this as a minor issue that has almost no priority.” A letter (13 January 1993) addressed to Paul Peck of the USFS was prepared by CEB to the effect that Ruffed Grouse were not native to the San Juan National Forest, ecosystems there were similar to those in other areas (Idaho, Utah, Wyoming) with Ruffed Grouse, and that “we cannot officially determine that Ruffed Grouse are native to the San Juan National Forest.” Further, “We request NEPA analysis proceed so that Ruffed Grouse can be considered for experimental release in the San Juan National Forest.” This letter was never sent as it was stopped in Denver (Len Carpenter’s office).

I contributed to a letter (25 January 1993) from Perry D. Olson, Director of the CDOW, to Regional Forester, Elizabeth Estill, USFS, Lakewood, CO. This letter referenced the desire of the Wildlife Commission and asked “Could you please advise me if there is any area (National Forest) within Colorado where Ruffed Grouse could be considered for introduction?” A Memo (1 March 1993) from Len Carpenter to George Vandenberg, Bill Hegberg (Wildlife Commissioners), Bob Towry (SW Region of CDOW), and myself “verified that Estill’s (USFS) office has received and read it.” The silence from the USFS continued and Ed Dentry, Rocky Mountain News (article of 15 April 1993) indicated that “Forest Service officials” used “a new management policy to nix Ruffed Grouse as an unwanted “exotic” species in at least one national forest.” Dentry also mentions “ecosystem management” as getting in the way and cites Larry Mullen of the USFS to the effect “it is an emerging philosophy” about “how our natural

systems evolved and function.” Mention is made of the “state’s moose transplant program” and Dentry quotes Mullen to the effect that “suddenly we have moose wandering around in four national forests.”

A letter (26 July 1993) addressed to ‘Friend’ from The Ruffed Grouse Society mentioned “several delays and a few setbacks”. Further, “The next milestone is July 30 in Steamboat Springs when the US Forest Service addresses the Colorado Wildlife Commission about ecosystem management and Ruffed Grouse.” I attended the meeting of the Wildlife Commission in Steamboat Springs on 30 July 1993. Per my personal diary, Glen Hetzel of the USFS discussed ecosystem management and Ruffed Grouse. Basically, the USFS does not want to make a decision and do not want to prepare EAs or EIS’s. Hetzel indicated they (USFS) hoped to “make a decision by the end of the year.”

David Hatcher, a free-lance writer in Boulder, Colorado left a message for me (22 September 1993) and I returned his call. Basically, under the Freedom of Information Act, he wanted access to all of my files on Ruffed Grouse. I had no choice but to invite him to Fort Collins to peruse and copy my files at his expense. I suspected this would not turn out well and it did not. Copies of my letter (24 September 1993) to Mr. Hatcher were sent to Rick Hoffman and Tom Remington. The article written by Hatcher was published in The Durango (CO) Herald (26 November 1993) under the title “Grouse may be transplanted in San Juans”. He made allegations that were not supported by a careful reading of the material in my files. L. Carpenter sent me a blistering handwritten Memo (C. E. Braun file) on 9 December 1993 about the Hatcher article. Rick Hoffman (Memo: 15 December 1993 to L. Carpenter) responded in my defense to the effect that we have to allow reasonable access to public files and have no control over how the information may be used and what is written. Mr. Hatcher had his own agenda.

I earlier (3 December 1993) received a FAX (a new way to send materials) of a memo from Len Carpenter asking me to review a proposed MOU (Section C) with the USFS (sent by

Larry Mullen) and the CDOW on Wildlife Transplants and Introductions. I reviewed the draft MOU with Rick Hoffman and responded (Memo: 6 December 1993) to L. Carpenter. We asked a series of questions ranging from exotic plants (Russian Olive [*Elaeagnus angustifolia*] for example), definitions of transplants and introductions, as well as several areas for clarifying use of words, how will 'baseline habitat conditions' be measured, who will do the work, and for which infectious diseases will tests be conducted.

The year 1994 started with release (January) of the Upland Bird Management Analysis Guide, 1994-1998 (Braun et al. 1994). A section (pages 44-47) was devoted to Ruffed Grouse. A survey had been conducted in March 1991 of (1) upland bird hunters and (2) the general public. There was disagreement about Ruffed Grouse between hunters and the general public (non-hunters). A strategy was presented, based on the Resolution passed by the Colorado Wildlife Commission (they set policy), to develop, implement, and evaluate a transplant program for Ruffed Grouse. Due, apparently to other more pressing issues (USFS vs. CDOW) about proposed releases of Ruffed Grouse, there were few direct comments about the information presented in the Upland Bird Management Plan.

Len Carpenter called on 5 January 1994 to provide information about a letter that will be received from the USFS (based on information from Larry Mullen) with a signed copy of the MOU between the USFS and CDOW. Our approach was to follow the MOU, which was likely to be challenged. The letter (5 January 1994) from Regional Forester Elizabeth Estill of the USFS arrived and provided information to the effect "we do not see the need for the Forest Service to do any additional analysis." The Estill letter also included the Memorandum of Understanding between the Colorado Division of Wildlife and Region 2 of the U.S. Forest Service signed on 17 December 1993 (Estill) and 23 December 1993 (Olson). A letter (7 January 1994) was received from Samuel R. Pursglove Jr. to Perry Olson expressing pleasure about the USFS decision and castigating me for alleged 'personal views', 'lack of professionalism', and

‘error in judgment’.

The Ruffed Grouse situation was discussed in Denver on 12 January 1994 prior to the meeting of the Wildlife Commission per my personal diary. It was clear that Bob Towry (SW Region) was opposed to Ruffed Grouse transplants and the Director (Olson) could care less about Ruffed Grouse. The suggestion was made that if the Commission did not reconsider their policy on Ruffed Grouse, we would follow the USFS/CDOW Memorandum precisely and would wait for people/opposition to surface and let the process take its course, but preferred to kill it. I visited with Louie Swift (Commissioner) about Ruffed Grouse and how to escape the morass. I prepared a synopsis for the Commission meeting on 13 January 1994 and visited with Bill Hegberg on 13 January in Denver; he appeared ready to jettison Ruffed Grouse. Len Carpenter used my hand-written outlines (in CEB file) for a presentation to the Commission. No one on the Commission pushed for anything other than Bill Hegberg asked for a schedule of what would be done and when. The Wildlife Commission had clearly given up and now had little interest in ‘rocking any boats’ which upset L. Carpenter.

I prepared (with Rick Hoffman) a detailed schedule as (requested by Bill Hegberg of the Wildlife Commission) for moving forward on the proposed Ruffed Grouse transplant and sent it (18 January 1994) to Len Carpenter (Memo with attached schedule). Basically, the USFS would be contacted in January 1994, selected sites would be examined in May/June, a joint CDOW/USFS report would be prepared in June/July, public meetings would be held in August/October, suitable trapping sites would be located in Idaho-Utah-Wyoming in September/October, and population objectives would be established in November 1994. Acquisition of trapping equipment and hiring of temporary personnel would be done in February/March 1995, birds would be trapped, tested for diseases, transported, and released in April/May, and monitoring would be conducted starting in May and continue in 1995. The same schedule for trapping and monitoring would occur in 1996 and 1997 with evaluation continuing

in spring 1998 and possibly continuing through 2000. The schedule of the plan was sent (18 January 1994) to the USFS attached to a letter from P. D. Olson. The basic plan was to transplant Ruffed Grouse to selected sites in the Mancos and/or Dolores Ranger Districts of the San Juan National Forest per the signed M.O.U. between the USFS and CDOW. Bob Saile of the Denver Post (19 January 1994) reported on the plans of the CDOW in support of the direction of the Wildlife Commission.

I responded (18 January 1994) to a letter (7 January 1994) from Samuel R. Pursglove Jr. of The Ruffed Grouse Society to Perry Olson, Director of the Colorado Division of Wildlife. I corrected him about my professionalism and position over the years which precisely matched the policy of the Colorado Division of Wildlife at all times. David Hatcher (Letter: 18 January 1994) contacted me seeking information and a copy of a letter from the USFS announcing the transplant plans. I responded (20 January 1994) to the effect a schedule had been prepared but was awaiting approval. Further, he should request information from Len Carpenter about the approved Memorandum of Understanding concerning wildlife transplants between the Colorado Division of Wildlife and the U.S. Forest Service, the letter from the U.S. Forest Service, and the approved schedule for our activities on Ruffed Grouse.

Letters from the Colorado Environmental Coalition (Rocky Smith) (13 January 1994) to Elizabeth Estill (USFS), and from Jasper Carlton (Biodiversity Legal Foundation) (22 January 1994) to Perry D. Olson were received questioning the legality and requesting rescinding of the decision, and NEPA analysis (CEC) or funding priority and a copy of 'your' environmental assessment (BLF) of the planned Ruffed Grouse transplants. I sent a Memo (26 January 1994) to L. Carpenter to the effect that we will continue per our earlier schedule of 18 January 1994 with the added suggestion that we organize a meeting soon with the opponents of the Ruffed Grouse transplant program. Carpenter responded in a hand-written Memo (27 January 1994) to me and also Rick Hoffman that we should prepare a draft letter in response to the Biodiversity Legal

Foundation indicating that “we do not do EA’s”. That draft letter was prepared and sent (27 January 1994) to Carpenter who signed and sent it. The letter referenced and included a copy of the MOU with the USFS, a copy of the schedule for the transplant activities, and a copy of the Colorado Wildlife Commission’s policy on Ruffed Grouse range expansion. Mike Wynn, President, Colorado Chapter of The Ruffed Grouse Society, sent a letter (2 February 1994) addressed to ‘Ruffed Grouse Enthusiast’ alluding to a “legal battle” and announced a meeting of those interested on 12 February 1994. I attended that meeting which was attended by 14 people (100 letters were sent) of which 4 were from the CDOW. Dan Decker (biologist for TRGS from Pennsylvania) reviewed a recent trip to Durango and commented about the lack of a shrub component in the understory.

Len Carpenter, (Memo: 3 May 1994), requested that I organize a meeting in the Denver area and another in the Durango-Cortez area in conjunction with Glen Hetzel and Larry Mullen. Rick Hoffman sent letter (11 May 1994) to personnel of the USFS in the Mancos and Dolores Districts of the San Juan National Forest to identify suitable dates for a meeting in each District. The date selected was 22 June 1994 starting in Mancos. Len Carpenter sent a detailed response (7 June 1994) to a letter (not seen) from Glen Hetzel (for Elizabeth Estill). This letter (prepared by CEB) responded to 6 specific questions, all of which have been previously discussed. Perry Olson, Director of the CDOW, sent letter (17 June 1994) to Glen Hetzel of the USFS and referenced the 25 January 1994 MOU and listed the species that are a priority for Conservation Agreements and Strategies. Ruffed Grouse were not listed but Columbian Sharp-tailed Grouse and Sage-Grouse were listed. .

Rick Hoffman (Memo: 27 June 1994 to CEB) discussed the meeting in Mancos about Ruffed Grouse transplants. Neither the Colorado Environmental Coalition nor the Biodiversity Legal Foundation was present. Rick Hoffman (14 July 1994) sent letters to the Ute Mountain Ute Agency, Southern Ute Agency, and Mesa Verde National Park to inform them of the proposed

transplant plan for Ruffed Grouse. Both the Colorado Chapter of The Ruffed Grouse Society (26 July 1994) and the Colorado Division of Wildlife announced (29 July 1994) meetings in Denver (6 September 1994) and Durango (13 September 1994) concerning the transplant of Ruffed Grouse. I attended both meetings. There were 7 people including Rick Hoffman and myself at the meeting on 6 September per my memo of 7 September 1994 to L. Carpenter. The 5 non-agency people represented The Ruffed Grouse Society (2), an environmental group (unknown) and one that was not identifiable. I also attended the meeting in Durango on 13 September which attracted 22 people including 8 from the CDOW, 3 from the USFS, and 2 from Fort Lewis College. The others were not easily identifiable. The article by Stephanie Spear in The Durango (CO) Herald (16 September 1994) misrepresented what Rick Hoffman said in his presentation per Rick's Memo (22 September 1994) to Geoff Tischbein. I was also contacted by Tim Richard of the San Juan Almanac (Letter: 21 September 1994) and both Rick Hoffman and I discussed the proposed transplant with him. His article appeared in the San Juan Almanac, October 1994 Volume 2, Number 1, Pages 11, 15.

P. D. Olson, Director of the Colorado Division of Wildlife received a letter (7 October 1994) from Brett Gosney of the San Juan Citizen's Alliance identifying 8 points on why Ruffed Grouse should not be released in the San Juan National Forest. Director Olson (and 'staff') responded on 26 October 1994. Jim Martin, representing the Land and Water Fund (Legal Aid For The Environment) on behalf of the Colorado Environmental Coalition, the Sierra Club, and (indirectly) the Audubon Society sent (27 October 1994) a 10-page letter to Elizabeth Estill, Regional Forester, Rocky Mountain Region to the effect that "We believe that the Forest Service's acquiescence in this proposal [of the Colorado Wildlife Commission] to introduce Ruffed Grouse...onto national forest lands] (a) is inconsistent with the Service's obligation for management of fish and wildlife resources on national forest lands; (b) violates the clear requirements of the National Environmental Policy Act, since the Service did not prepare an

environmental assessment as a predicate to its finding that the proposal would not significantly affect the quality of the human environment; and (c) is inconsistent with and violates The Wilderness Act of 1964 and the Forests Service's own policies for management of lands that have been designated as components of the National Wilderness Preservation System.”

This was clearly the beginning of the end of the effort to transplant Ruffed Grouse to National Forest lands in Colorado in the 1990s.

Responses (both basically alike) were sent (23 November 1994) from the office of Elizabeth Estill (USFS, Rocky Mountain Region) to Mark Pearson of the Rocky Mountain Chapter Sierra Club, and Pauline P. Reetz of Denver Audubon. Dan Dessecker of The Ruffed Grouse Society sent a letter (23 November 1994) to Elizabeth Estill (USFS) with a cover letter to P. D. Olson (CDOW). The letters to both Estill and Olson differed with that to Estill less pleasant than the letter to Olson. A response (Letter: 1 December 1994) from Elizabeth Estill (USFS) to Jim Martin of the Land and Water Fund indicated no change in the position of the USFS but suggested ‘their’ concerns should be “discussed with the Colorado Division of Wildlife or the Commission.” L. H. Carpenter sent a letter (6 December 1994) to everyone on the Ruffed Grouse mailing list to the effect the Colorado Division of Wildlife was reassessing priorities concerning introducing Ruffed Grouse into the San Juan National Forest. The reason provided was the ‘new Long Range Plan’. The tentative date for the Wildlife Commission to listen to public comments was 12 January 1995. At least 18 written comments were received during October through December 1994 of which at least 2 were supportive of the transplant of Ruffed Grouse while 16 were negative (all responses in C. E. Braun File).

Len Carpenter (Memo: 4 January 1995) provided direction to CEB and Rick Hoffman for the message we (especially Rick) were to present to the Wildlife Commission on 12 January 1995. I attended the Commission meeting in the PM of 12 January 1995 and kept written notes plus additional comments in my personal diary. Len Carpenter and Rick Hoffman spoke for the

CDOW). Among the speakers were Larry Mullen (USFS), Warren Gore (CCA), Bob Angel (Sierra Club), Polly Reetz (Denver Audubon), Jerry Hart (United Sportsmen), Dan Dessecker (TRGS), Mike Wynn (CCTRGS), and others. The Commission was split with Hegberg and Swift willing to rescind their earlier support. The Commission decided to revisit the issue at their July meeting and we were directed to proceed with the Ruffed Grouse transplant without soliciting or accepting funds from outside sources. Director P. D. Olson indicated the issue will likely be tested in court. Commissioner William R. Hegberg sent a letter (16 January 1995) to Len Carpenter with a copy to me elucidating some of his concerns. He was on target (my view) as he was practical. His P.S. was also of interest and is presented here verbatim. "I found the arguments that Ruffed Grouse were "native" because they were found ¼ mile into Colorado not only absurd but embarrassing. They might even be irrelevant, if we believe in ecosystems as a more appropriate management construct."

I informed Len Carpenter (Memo: 16 January 1995) about the schedule for the work on Ruffed Grouse, and later (Memo: 24 January 1995) directed Rick Hoffman to proceed even though we both expected legal action. We presently had no place to release Ruffed Grouse on USFS lands. I also considered personnel assignments and the pressing needs to initiate work on Columbian Sharp-tailed Grouse in the Southwest Region. We also needed to assign a permanent researcher on Sage-Grouse in at least 2 major areas of Colorado. I noted L. Carpenter's direction to me against use of graduate students on research projects, which markedly affected what we could achieve and the productivity of the Upland Bird Program. Thus, the Upland Bird Program was inadequately staffed to meet the pressing needs of today, let alone those of tomorrow. We know what the priorities should be but have no way to address them. Finally, I could not be expected to continue working 300+ hours/month as I had been elected to serve as President of The Wildlife Society in Fall 1995 (for 2 years).

Rick Hoffman informed CEB (Memo: 24 January 1995) about his plans for the next 5

months and associated costs and needs for temporaries. I approved all of his requests. Len Carpenter (Memo: 25 January 1995) provided the Colorado Wildlife Commission with our planned schedule (18 January 1994) for proceeding with transplanting Ruffed Grouse into Colorado. Larry Mullen of the USFS notified me by phone (30 January 1995) that the Land and Water Conservation Fund will file action concerning release of Ruffed Grouse in Colorado against the USFS. Len Carpenter notified me (by phone) (23 February 1995) that we will need to have alternative sites on State (?) lands (Fish Creek?) for release of Ruffed Grouse. I mentioned that I had ethical problems with that possibility. I was informed by Bob Towry via phone (27 March 1995) that Jim Webb (San Juan National Forest) had been served 'papers' on Ruffed Grouse. I reached Rick Hoffman by phone (27 March 1995) to inform him not to start the engines. I received a series of messages (27 March 1995) from Larry DeClaire (CDOW legal advisor) that a law suit had been filed by some people in Durango. I received the same message by phone (28 March 1995) from Bob Towry (CDOW, SW Region) to the effect that CDOW no longer has 'permission' to release Ruffed Grouse on national forests. I received a FAX (30 March 1995) of an article in The Durango (CO) Herald by Electa Draper on 28 March 1995 titled "Grouse ruffles groups' feathers". This article essentially provided a rehashing of previous stories and the most recent complaint by the San Juan Citizen's Alliance. Len Carpenter provided advice via phone (30 March 1995) and suggested that we 'call off' going to Idaho. We had a conference call (30 March 1995) with Commissioners (Tom Eve, Bill Hegberg, Mark LeValley, Arnold Salazar, Louis Swift), and others (Clait Braun, Len Carpenter, Larry DeClaire, Rick Hoffman, Rick Kahn, Bruce McCloskey, Bob Towry). A motion was made by the Commission to back off but plan to continue in Fall 1995. The motion carried. It was not pretty. I later met with Rick Hoffman after Rick had indicated to Commissioners that we could delay the release until fall, which they bought. This was a mistake as the Commission was on the ropes. I later chewed on Rick and assigned him to Sharp-tailed Grouse effective 1 April 1995 as there

was no need to move forward on Ruffed Grouse. Arnold Salazar, Chairman of the Colorado Wildlife Commission, sent a letter (30 March 1995) to Jim Webb, Forest Supervisor, San Juan/Rio Grande National Forest to the effect the CDOW was temporarily postponing the 1995 spring release of Ruffed Grouse but will plan to proceed in fall 1995. Dan Dessecker of The Ruffed Grouse Society sent a letter (31 March 1995) to Jack Ward Thomas, Chief of the U.S. Forest Service complaining about the delays.

Articles about the potential release of Ruffed Grouse in southwestern Colorado appeared in the Fort Collins Coloradoan (Jennifer Brown, 8 April 1995) and the High Country News (David Hatcher, 1 May 1995). Neither plowed new ground nor was completely accurate. Len Carpenter (Memo: 17 May 1995) announced (13 on cc list) the Wildlife Commission would discuss the introduction of Ruffed Grouse at their 15 June workshop in Meeker. Jerry Hart, President, United Sportsmen's Council of Colorado, requested (Letter: 14 June 1995 to Ralph Morgenweck, Regional Director, USFWS, [Denver] that Ruffed Grouse be listed as Endangered.

I attended the Wildlife Commission Workshop in Meeker on 15 June 1995 where most of the interested parties on the Ruffed Grouse transplant met with the Wildlife Commissioners. I took 7 pages of hand-written notes. Six Commissioners were present (Rebecca Frank, Bill Hegberg, Mark LeValley, Arnold Salazar, John Stulp, Louis Swift) as well as Elizabeth Estill, Larry Mullen, and Melanie Woolever of the USFS (Denver), Mark Weber and Mike Wynn (CCRGs, Salida), Mark Pearson (Sierra Club, Durango), Mike Smith (Lawyer for Land and Water Fund), Jim Webb (USFS San Juan NF). There was no give by the Sierra Club, CEC, LWF (they believed they would win in court), USFS, or TRGS. The meeting ended after a question from Arnold Salazar "is there anywhere on National Forest lands where Ruffed Grouse could be released?" There was silence. Earlier Elizabeth Estill (USFS) indicated the White River NF, Grand Mesa NF, Gunnison NF, and San Juan NF were out. **Clearly, the Ruffed Grouse transplant was out (dead in the water).** I note that an additional 9 responses (7 in support, 2

opposed) were received between 1 January and 1 May 1995 (no comments thereafter) concerning transplants of Ruffed Grouse in Colorado. Rick Hoffman sent a letter (26 June 1995) to J. Webb (USFS) to the effect that he (Rick) had been reassigned from Ruffed Grouse to Columbian Sharp-tailed Grouse.

Bruce McCloskey, Deputy Director, CDOW assigned Dick Norman to handle the Ruffed Grouse issue (Memo: 20 July 1995) (**the horse was already out of the barn!**). The Colorado Cattlemen's Association in a statement (page 2) (24 July 1995) by Miles Davies, President, questioned expending "valuable resources to introduce the Ruffed Grouse into Colorado." The U.S. Forest Service released a directive on 10 September 1996 that clarified what actions (including transplants) on federal lands require NEPA. I received no further information about Ruffed Grouse in Colorado after 1996 until 2015. Please keep in mind that I retired from the Colorado Division of Wildlife on 30 June 1999. The Ruffed Grouse transplant effort had died in 1995. Gunnison Sage-Grouse had become the next major grouse issue.

2000s

I started hearing rumbles in mid-2015 about a new effort to transplant Ruffed Grouse into Colorado and searched the internet and found Colorado's 2015 State Wildlife Action Plan (SWAP) (cpw.state.co.us/StateWildlifeActionPlan). However, careful review of that document revealed no mention of Ruffed Grouse as a Tier 2 species even though only a very small population occurs in Colorado in far western Moffat County. I eventually learned renewed interest in Ruffed Grouse transplants apparently arose in 2014 in the office of the Regional Manager in Grand Junction. Subsequently, also on the Internet, I found a Memorandum prepared by Craig McLaughlin (CP&W) (6 November 2015) explaining and defending a trap and transplant plan. Examination of the 2015-2016 Animal Capture and Movement Proposals – Small Game and Waterfowl revealed Ruffed Grouse were to be transplanted in late summer/fall 2016 with transplants continuing for 3 years (Fall 2018) for up to 300 birds. I retrieved a copy of

the Agenda for the Colorado Parks and Wildlife Commission Meeting (19-20 November 2015) and Item # 23 was “Trap and Transplant Plan.” There was also a link to the Colorado Parks and Wildlife Ruffed Grouse Range Expansion Plan with a date of 2015. This plan is well prepared but discredits Hoffman and Braun (1978) and accepts as valid most if not all sight records of Ruffed Grouse in Colorado from prior to and after 1978. There are no data to support accepting any of the sight records. Even the more recent sight records from the Colorado Field Ornithologists (2015) are only from the area of Hoy Mountain where the 3 specimen records were obtained (Braun et al. 2003). Further, there is no mention of discussions with the U.S. Forest Service or the need to prepare an Environmental Assessment or an Environmental Impact Statement (NEPA).

I reviewed copies of the results of the 2016 and 2017 CPW progress reports on the Ruffed Grouse Range Expansion Plan. The 2016 report (on-line) indicates 25 birds were moved from Utah and released on Garfield Creek State Wildlife Area. The 2017 report indicates 9 more were moved from and released in the same areas. A large proportion of the transplanted birds were young of the year. The Garfield Creek State Wildlife area appears to abut the White River National Forest in Garfield County, Colorado.

Contrary to the efforts to transplant Ruffed Grouse into Colorado in the 1974-1994 interval, the efforts in 2014-2017 had no apparent public exposure or review prior to implementation in 2015-2017. Further, no efforts were apparently made to involve the U.S. Forest Service. It is also unclear if there was any discussion with the Parks and Wildlife Commission about Ruffed Grouse and the initial approval on 23 July 1992 to transplant Ruffed Grouse into Colorado, the subsequent objections by the U.S. Forest Service (and others), the legal actions undertaken by opponents in January 1994 into 1995, and the ultimate collapse of the plan in June 1995 with no formal closure but also no further action. The actions of CPW in 2014-2017 also failed to consider the statement of Regional Forester Elizabeth Estill (USFS) on

15 June 1995 that releases in the White River National Forest would not be approved.

Overall costs of the transplants in 2016 and 2017 are unclear as are those for planning and preparation in 2014-2015. The 2015-2016 Animal Capture and Movement Proposal indicate Wildlife Cash would be used for the Ruffed Grouse transplant in the Northwest Region. Ruffed Grouse are a Tier 2 species and actions only need the approval of the appropriate Regional Manager and the Terrestrial Section Manager.

The 2016 report indicated 29 staff and 6 volunteers were in the field during 13 days and captured/released 25 birds of which 10 were young of the year. The 2017 report indicted 32 staff and volunteers (the number of each was not reported) were involved in the field over 19 days and 10 birds (2 adults and 8 young of the year) were captured but only 9 were released. Radio transmitters were placed on 20 birds in 2016 and 4 in 2017. Radio-marked birds were followed biweekly during September through November in both years and from aircraft throughout winter and spring. A map of the movements post-release of Ruffed Grouse in 2016 does not clearly identify or label the boundary between State lands and those managed by the USFS (National Forest). Ruffed Grouse continued to be listed in the Colorado Parks and Wildlife 2017-2018 Animal Capture and Movement Proposals “Additional trapping will occur in the late summer and early fall of 2018 to secure additional RUGR for transplant to the Grand Mesa vicinity, with the goal of completing the transplant project in 2018 if sufficient additional birds can be trapped.” No results could be found for 2018 or later years.

CONCLUSIONS

This review illustrates that a single person can push agencies to consider actions that have little chance for success, especially if that person has special knowledge and access to agencies responsible for managing public lands. Repeated correspondence and oral communications can be effective in attracting others and encouraging them to also pressure public agencies. Several

Directors of the Colorado Division of Wildlife resisted the singular message that Ruffed Grouse would do well in Colorado if only the agency would introduce them through a series of transplants over a long period. An organization existing to represent a group of hunters also pressured both the Colorado Division of Wildlife and the U.S. Forest Service. The actions of a small number of people were successful in changing the policy of both agencies even though there was little overall support for the desired goal (more birds to hunt). Appointees representing sportsmen and other constituencies were easily swayed and proved to be ineffective. Conservation groups stymied the pro-transplant groups using legal avenues and National environmental laws.

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APPENDIX A

Questions: Introduction of Ruffed Grouse into Colorado

(C. E. Braun Memo of 13 February 1976 to W. W. Sandfort)

1. Would there be competition for space between Blue and Ruffed Grouse?
2. Would the Blue Grouse season be closed in a particular area to protect an introduction of Ruffed Grouse?
3. If successfully introduced, would Ruffed Grouse be managed separately or in conjunction with Blue Grouse? If managed together, would the bag and possession limits be increased from the present 3 and 6 for Blue Grouse alone?
4. Where would Ruffed Grouse be obtained? It would be logical to introduce a race that might be adapted for our habitats and climate.
5. Where would Ruffed Grouse be introduced and who will do the selection of sites? Obviously, our best potential habitats are in the San Juan Mountains and possibly near Steamboat Springs.
6. Would Ruffed Grouse dilute our research and management effort on native grouse species?

Ruffed Grouse Presentation, 15 March 1988, Salida, Colorado

(C. E. Braun hand-written talking points)

1. Most habitat is not suitable and would result in (a) limited distribution, (b) irregular distribution, and (c) low densities.
2. Most (if not all) potential habitats are occupied by Blue Grouse which could be displaced.
3. Would there be a gain in harvest regulations from the present 3/6 limits for Blue Grouse (aggregate bag for forest grouse, 5/10, 4/8, or 3/6)?
4. Would there be a need for closures of the Blue Grouse season in areas to protect introduced Ruffed Grouse?
5. If transplants were not markedly successful over large areas, would we list Ruffed Grouse as endangered or threatened?
6. Would the benefits overshadow the costs of a Ruffed Grouse introduction program?

7. Disease/parasite potential. The Ruffed Grouse has the highest reported incidence of parasites of any game bird in North America.
8. Can Blue and Ruffed Grouse coexist in high densities? Blue Grouse densities in the aspen type are good in Colorado. There is no evidence from surrounding states (Utah, Idaho, Wyoming, Montana) that both species can coexist in high numbers. In all other western states where both species exist, the Blue Grouse is the dominant species in terms of densities and hunter harvest.
9. Ruffed Grouse introductions are not high priority for the CDOW at this time or in the foreseeable future.
10. We would need active habitat management over large areas coupled with decrease in grazing pressure to ensure success of a Ruffed Grouse transplant.

Response by M. W. Weber, 15 March 1988, Salida, Colorado

(C. E. Braun hand written notes)

1. There is a need for additional upland game bird hunting opportunity, especially in the Salida area.
2. We have enough habitat to support Ruffed Grouse citing a letter of 26 February 1987 from G. W. Gullion.
3. A transplant would be successful (citing G. W. Gullion) and hunters would bag 4-5 Ruffed Grouse/Blue Grouse.
4. We should not be afraid to try a transplant.
5. There would be benefits in adding diversity of species, hunting opportunities, and increased revenue from sale of small game licenses.
6. There could be problems in that the transplant would work, it would not work and we would not have to close the Blue Grouse season.

Ruffed Grouse Have Low Priority in Colorado

(Two-page handout of 13 August 1990 prepared by C. E. Braun)

1. They occur in Colorado only accidentally or peripherally.
2. Their potential range is fully occupied by Blue Grouse.

3. Most aspen-dominated habitat is not suitable and would require intensive management (cutting, bulldozing, burning, restriction of grazing) to become suitable (17,000-21,000 stems/acre) (cost of \$80/ac).
4. Multiple transplants would be needed to establish populations over large areas (the Ruffed Grouse is a poor disperser through unsuitable habitat, suitable habitat occurs in widely scattered “pockets”). Costs of a transplant program could approximate \$8,000/transplant.
5. Closures to Blue Grouse hunting may be needed to “protect” transplanted Ruffed Grouse.
6. If successfully established, Ruffed Grouse would provide less than 10% of the mountain grouse harvest as they would be more difficult to hunt than Blue Grouse. Blue Grouse in Colorado presently are under harvested (< 5% of the fall population is harvested).

Possible Status of Ruffed Grouse

(Memo of 2 November 1990 from C. E. Braun to Len Carpenter)

Alternatives

1. No change.
2. Classify as game species and close season.
3. Classify as game species and open with Blue Grouse. (aggregate or separate bag/possession limits)
4. Classify as endangered species as there are probably fewer than 50 birds in Colorado.

Pros (Memo of 2 January 1991 from Tom Remington and Rick Hoffman)

1. Increase diversity of upland bird hunting experiences in Colorado.
2. Increased grouse hunting opportunities should lead to increased participation (more trips, more hunters) and additional harvest of Ruffed Grouse and Blue Grouse.
3. Division will be and will be perceived to be responsive to public demand.
4. Preservation. Because a small population has been identified within Colorado, transplants will be perceived as range expansion and as fulfilling

CDOW mission to “perpetuate all wildlife resources of the State and provide people the opportunity to enjoy them”.

5. Public access. Most suitable habitats occur on public lands which are accessible to hunters and viewers.
6. Significant watchable wildlife benefits.
7. High probability of success. Proven transplant techniques are available as evidenced by the success of Midwestern and other western states in moving grouse. Suitable habitats have already been identified within Colorado, at least preliminarily.
8. External funding has been pledged (Ruffed Grouse Society, private donations) or is potentially available (Forest Service KV Funds, BLM matching funds).
9. High management potential. Aspen harvests can be designed to benefit Ruffed Grouse and other wildlife. Habitats for Ruffed Grouse can be improved by ongoing forest management to an extent not possible with other upland bird species.
10. There is documented support at the Regional (SW) level within the Division for a transplant program.
11. Opportunity exists for cooperative management with other public agencies and private conservation groups.

Cons (Memo of 2 January 1991 from Tom Remington and Rick Hoffman)

1. Tie up Division resources, potentially for a long time.
2. Potential competition with Blue Grouse.
3. Potential for introduction or transmission of diseases.
4. Ethical opposition to introduction of species to new habitats.
5. Although probably not necessary, if release areas are closed to grouse hunting then hunting opportunity may be restricted temporarily.
6. Some risk of failure of transplants to take or to meet hunter expectations.

APPENDIX B

Divisional Correspondence Only

STATE OF COLORADO

Division of Wildlife

DEPARTMENT OF NATURAL OF RESOURCES

DATE: February 28, 1990

TO: Those Interested in Ruffed Grouse

FROM: Clait E. Braun *Clait*

SUBJECT: Ruffed Grouse and Blue Grouse

There appears to be interest in potential competition between native blue grouse and (potentially) introduced ruffed grouse. Ruffed grouse are known to occur in Colorado based on one specimen (Adult male) shot in October 1988 on Hoy Mountain, about 0.5 mile east of the Utah State boundary. This site is within the loop of the Green River and it is not likely ruffed grouse could spread naturally further into Colorado (memo of 22 Nov 1988 from C. E. Braun to J. Lipscomb). Limited exploration of the remote site where the one ruffed grouse was collected has failed to document the occurrence of other birds of this species. They may be there but only in small numbers. Thus, expansion of their range in Colorado would have to be through transplants.

Transplants of ruffed grouse further into Colorado could be expensive (> \$8,000/transplant and 2 transplants/site, memo of 5 December 1988 from C. E. Braun to J. Lipscomb) and would bring them into direct contact with blue grouse. This poses the question, would the 2 species compete for the same resources? The literature on blue grouse/ruffed grouse in sympatric situations is sparse and I know of only 2 original publications and one review paper. These are:

Marshall, W. H. 1946. Cover preferences, seasonal movements, and food habits of Richardson's grouse and ruffed grouse in southern Idaho. *Wilson Bulletin* 58:42-52.

Stauffer, D. F., and S. R. Peterson. 1985. Ruffed and blue grouse habitat use in southeastern Idaho. *J. Wildlife Management* 49:459-466.

Hoffman, R. W., and C. E. Braun. 1978. Characteristics and status of ruffed grouse and blue grouse in Colorado. *Western Birds* 9:121-126.

The gist of these papers is that where blue and ruffed grouse are sympatric, ruffed grouse occupy the densest habitat (usually dominated by deciduous shrubs/trees) in riparian zones while blue grouse occupy more open habitats at all elevations. Both species respond well to habitat manipulation with densities being highest in younger successional stages.

Thus, neither species is solely a climax species although blue grouse appear to persist longer as climax vegetation is approached than do ruffed grouse. I conclude from the literature that both species can reach high densities, but not at the same time in the same area. Also, intensive management (cutting of aspen primarily) is more beneficial and necessary for ruffed grouse.

I contacted the western states (Wyoming, Utah, Idaho, Montana) to enquire as to ratio of blue grouse and ruffed grouse in the harvest, and how these species were “managed” in terms of regulations. People contacted (H. Harju – Wyoming; J. Roberson, J. Grandison, D. Olson – Utah; J. Weigand – Montana; J. Connelly – Idaho) all reported their respective states have an aggregate “forest grouse” bag because of the hunter’s inability to distinguish between ruffed and blue grouse even in the hand (especially juveniles). Bag limits were typically 3 birds/day in the aggregate although Montana has had up to 4 or 5 birds/day in the aggregate.

The ratio of blue grouse to ruffed grouse in the harvest (questionnaire surveys, some wing surveys) varies by area and year. Utah reports 55:38 for the entire state, Montana = 50:39, Wyoming = range 50-80 blues: 20-66 ruffed grouse, while Idaho reports 2-84 blues: 8-92% ruffed grouse. The closest areas to Colorado in Utah report 5-6 blue grouse for every ruffed grouse. In general, percentage of ruffed grouse in the “forest grouse” harvest decreases from north to south.

What does all of this mean? Obviously, blue and ruffed grouse coexist in portions of western North America with some habitats favoring blue grouse and others favoring ruffed grouse. Also, blue grouse occupy more habitats and occur further south in western North America than ruffed grouse as habitats for the latter are limited because of moisture, aspect, and terrain. Blue grouse appear to be easier to harvest than ruffed grouse although many of both species are harvested on or adjacent to roads. Some displacement of blue grouse by ruffed grouse could be expected in habitats that are “ideal” for ruffed grouse. Thus, competition would primarily be for space but this could be minimal.

My analysis of the ruffed grouse question has not changed from that in my memo of 29 March 1988 to Jim Lipscomb. I believe that properly conducted transplants of ruffed grouse would be successful in establishing populations in limited areas. The cost of these transplants would be high and many transplants would be necessary to establish the species over a broad area. Thus, the cost benefit ratio would be poor. This is especially true when

one considers the proportion of the fall blue grouse population in Colorado that is annually harvested.

CEB:dh

xc: L. Carpenter
R. Hoffman
K. Giesen
T. Remington
W. Snyder

APPENDIX C

NAMES AND AFFILIATIONS OF THOSE MENTIONED IN THE TEXT

Angel, Robert. Sierra Club. Denver, CO.

Asbury, Greg. G. 1990. Bird Hunter. Fort Collins, CO.

Brown, Jennifer. Writer. The Coloradoan. Fort Collins, CO.

Carlton, Jasper. Director, Biodiversity Legal Foundation. Boulder, CO.

Carpenter, Len. State Wildlife Manager, CDOW, Denver, CO.

Case, L. E. Bird Hunter. Denver, CO.

Cebula, Jerry. Bird Hunter, Golden, CO.

Chlouber, Ken. State Representative, Leadville, CO.

Colorado Division of Wildlife. Denver, CO.

Colorado Field Ornithologists. Denver, CO.

Colorado Parks and Wildlife. Denver, CO.

Colorado's State Wildlife Action Plan. Colorado Division of Parks and Wildlife, Denver, CO.

Cooper, Eldon. Chairman, Colorado Wildlife Commission, Denver, CO.

Davies, Miles. Rancher, Colorado Cattlemen's Association, Denver, CO.

Dentry, Ed. Writer, Rocky Mountain News, Denver, CO.

Dessecker, Dan. Biologist, The Ruffed Grouse Society, Coraopolis, PA.

DeStefano, Steve. Cooperative Wildlife Research Unit, Madison, WI.

Dobson, Ron. Wildlife Conservation Officer, Salida, CO.

Donoho, Harvey. Assistant Regional Manager, CDOW, Montrose, CO.

Dougherty, Tom. National Wildlife Federation, Denver, CO.

Draper, E. Writer. The Durango (CO) Herald.

Estill, Elizabeth. Regional Forester, USFS, Denver, CO.

Frank, Rebecca. Wildlife Commissioner, CDOW.

Friedlander, Joan. Staff Biologist, USFS, Denver, CO.

Gary, Sam. Bird Hunter. Denver, CO.

Gore, Warren. Colorado Cattleman's Association. Denver, CO.

Gosney, Brett. San Juan Citizen's Alliance, Durango. CO.

Grieb, Jack R. Director, CDOW, Denver, CO.

Gullion, G. W. Professor, University of Minnesota, Twin Cities, MN.

Hart, Jerry. United Sportsmen's Council of Colorado, Denver, CO.

Harju, Harry. Wyoming Game and Fish Department, Cheyenne, WY.

Hatcher, David. Writer. Boulder, CO.

Hegberg, William R. Wildlife Commissioner, CDOW, Snowmass, CO.

Hein, Dale A. Professor, Wildlife Biology Colorado State University, Fort Collins, CO.

Hernbrode, Robert. Staff Biologist, CDOW, Denver, CO.

Hetzel, Glen E. Biologist, USFS, Denver, CO.

Hinz, Tom. Biologist, Montana Game, Fish, and Parks, Bozeman, MT.

Hoffman, R. W. Wildlife Researcher, Fort Collins, CO.

Lipscomb, Jim. State Wildlife Manager, CDOW, Denver, CO.

LeValley, Mark. Wildlife Commissioner, CDOW.

Lytle, Tom. Staff Biologist, CDOW, Denver, CO.

Masson, John A. Bird Hunter, Denver, CO.

McCluskey, Bruce L. Assistant Director, CDOW, Denver, CO.

McLaughlin, Craig, CP&W, Denver, CO.

Meyers, Charlie. Writer. The Denver Post, CO.

Morgenweck, Ralph. Regional Director, USFWS, Denver, CO.

Mullen, Larry. Biologist, USFS, Denver, CO.

Norman, Richard. Staff Biologist, CDOW, Denver, CO.

Olgilvie, Stan. Area Wildlife Manager. CDOW. Salida, CO.

Olson, Perry D. Director, CDOW, Denver, CO.

Olterman, Jim. Regional Biologist. CDOW, Montrose, CO.

Pearson, Mark. Sierra Club, Denver, CO.

Peck, Paul H. USFS, San Juan National Forest, Mancos, CO

Peterson, C. A. Bird Hunter, Denver, CO.

Prenzlow, Ed. Assistant Director, CDOW. Denver, CO.

Pursglove Jr., Samuel R. Director, The Ruffed Grouse Society, Coraopolis, PA.

Reetz, Pauline P., Denver Audubon, Denver, CO.

Remington, Tom. Wildlife Researcher, CDOW, Fort Collins, CO.

Richard, Tim. Writer, San Juan Almanac. Durango, CO.

Ruch, James B. Director, CDOW, Denver, CO.

Rusch, Don H. Cooperative Wildlife Research Unit Leader, Madison, WI.

Ryder, Ronald A., Professor, Colorado State University. Fort Collins, CO.

Saile, Robert. Writer, The Denver Post, Denver, CO.

Salazar, Arnold, Chairman, Colorado Wildlife Commission, Alamosa, CO.

Sandfort, W. W. Assistant Director, CDOW, Denver, CO.

Smith, Mike. Lawyer, Durango, CO.

Smith, Rocky. Colorado Environmental Coalition, Durango, CO.

Spear, S. Writer, The Durango (CO) Herald.

Stauffer, Marty. Photographer, Aspen, CO.

Strickland, Dale. Wyoming Game and Fish Department, Cheyenne.

Stulp, John. Wildlife Commissioner, CDOW.

Swift, Louis. Wildlife Commissioner, CDOW.

Thomas, Jack W. Chief, U.S. Forest Service, Washington, D.C.

Tischbein, Geoff. I & E Specialist, CDOW, Montrose, CO.

Torgerson, Ollie. Assistant Director, Missouri Department of Wildlife, Columbia, MO.

Towry, Robert. Southwest Regional Manager, CDOW. Montrose, CO.

Upham, Lee. Biologist. BLM. Glenwood Springs, CO.

Vandenberg, George. Wildlife Commissioner, CDOW, Durango, CO.

Webb, Jim. USFS, Durango, CO.

Weber, Mark. W. Ruffed Grouse Enthusiast, Salida, CO.

Williams, R. W. Bird Hunter, Denver, CO.

Wynn, Mike J. Ruffed Grouse Enthusiast, Salida, CO.

Zgainer, Mike. Area Wildlife Manager, CDOW, Durango, CO.

Zieroth, Elaine. Biologist, USFS, Mancos, CO.



Dr. Clait E. Braun received a B.S. in Technical Agronomy from Kansas State University (1962), an M.S. in Wildlife Management from the University of Montana (1965), and a Ph.D. in Wildlife Biology from Colorado State University (1969). He spent 1969–1999 with the Colorado Division of Wildlife, where he was a Research Wildlife Scientist, Wildlife Research Leader, and Avian Program Manager. Dr. Braun conducted and directed research on grouse for most of his career (starting in 1965), continuing to publish scientific papers following “retirement”. He is the author or co-author on approximately 300 scientific publications, mostly in peer-reviewed journals and has supervised many M.S. and Ph.D. students. He also served for many years as Editor of *The Wilson Journal of Ornithology*. He is a Certified Wildlife Biologist.