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January 30, 2009

Coronado National Forest  
ATTN: Ms. Jennifer Ruyle  
Forest Plan Revision Core Team  
300 W. Congress St.  
Tucson, AZ 85701

***Re: Comments on Coronado National Forest Plan Revision Process***

Dear Ms. Ruyle,

The following comments on the Coronado National Forest Plan revision process are submitted on behalf of the Southern Arizona Cattlemen's Protective Association. Their purpose is to aid the Coronado National Forest in understanding the needs and concerns of livestock growers, to contribute to the development of a sound information base, and to help the Coronado make better decisions as a result.

**1. Controlled Livestock Grazing is an Important, Sustainable and Highly Beneficial Multiple Use of the Coronado National Forest**

Although the Core Team recognizes that controlled livestock grazing, as practiced on the Coronado National Forest today, is both sustainable and of possible benefit to rangelands, it cites only one of a considerable number of publications that actually address this subject matter. While the Team does cite Loesser (2007) for support of the proposition that controlled grazing may benefit Arizona rangelands during drought, it does not cite Holechek et al. (2004), which is directly on point with that conclusion, or any of the many other publications where controlled livestock grazing has been variously shown to be environmentally beneficial to a number of plant and animal species (See: citations to publications, attached).

For example, a growing body of scientific literature and data supports the conclusion that controlled livestock grazing does or can provide substantial and positive benefit to native fishes and their habitat. Bayley and Li (2008), Kodric-Brown and Brown (2007), Jackson et al (2006), Saunders and Fausch (2007). Other publications warn of the consequences of ignoring geologic variation in evaluating grazing impacts relative to native warm water fishes and their habitats (Long and Medina, 2006), while yet another warns against making livestock exclusionary management decisions on the

basis of the unfounded assumption that livestock grazing has measurable and negative effects on native fishes and their habitats when, in fact, such assumption is unsupported by the existence of any scientific data. Rinne (2004).

Scientific data, obtained both on the Coronado and other National Forest units in Arizona, provide further caution against this assumptive form of decision making. This data supports the conclusion that controlled grazing does and can benefit native warm water fishes and their habitats. For example, on the upper Verde River, native fishes declined from making up over 80% of the aggregate of all fishes found in that part of the river under a controlled livestock grazing regime in 1994 to just 15% of the aggregate of all fishes found there 2008, a little more than a decade after the Forest Service totally excluded livestock from the river (RMRS monitoring data, 1994-2008).

The first to go was the Spikedace, which became extinct in the upper Verde just two years after all livestock were excluded from the river by the Forest Service. Moreover, two of the upper Verde's most formerly common native fishes, the Long-finned Dace and the Speckled Dace, were found in 2008 to be relegated in occurrence to just two privately-owned stretches of the upper Verde River where controlled use by livestock is yet practiced. (RMRS monitoring data, 2008).

Similarly, on the Coronado, in Redrock Canyon near Patagonia specifically, the Gila Topminnow also disappeared entirely a little more than a decade after the exclusion of livestock from its habitat in the absence of NEPA by the Forest Service. In fact, no Gila Topminnows have been detected in Redrock Canyon since 2006. (Petersons, Redrock Ranch, pers. comm. 2008).

Native warm water fishes, however, are not the only species shown to benefit by the practice of carefully controlled livestock grazing. Grassland birds (Bock & Bock et al., 1984), Southwestern willow flycatchers (Brodhead, Stoleson & Finch, 2007), Mearns Quail (Bristow & Ockenfels, 2000), Elk (Anderson & Scherzinger, 1975), Mule Deer (Smith et al, 1979) and terrestrial invertebrates (Saunders & Fausch, 2007), among other species, have also been shown to ecologically benefit from carefully controlled livestock grazing (See: citations, attached).

Clearly, ranching, and controlled grazing as a land use, is ecologically sustainable and compatible with the natural heritage of the Coronado National Forest. Despite the claims of its detractors, the truth of the matter is that ranching keeps lands and landscapes open, stewarded and intact. Ranching also keeps human residential densities low while protecting private lands from fragmentation (Knight, 2007<sup>1</sup>).

Economically, ranching, and its employment of controlled grazing as a land use, provides high quality, locally grown food. Moreover, ranching also pays its own way and supports a fiscally responsible economy (Knight, 2007) sustained by production, rather than a fiscally irresponsible economy based on the illusory and undependable availability of second-hand or production derivative dollars expended by tourists.

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<sup>1</sup> Knight, R.L. 2007. *Ranchers as a keystone species in a West that works*. *Rangelands* 29(5): 4-9.

Culturally, ranching on the Coronado National Forest extends over a time period of more than 300 years (See: chronology of livestock presence, attached) and, unlike tourism, is one of the oldest consistently productive and sustainable land uses practiced on the Coronado. This thread of historical, cultural and social continuity remains alive and is embodied as an asset by the Coronado's ranchers today.

In sum, as stated by Knight (2007): “[t]he protection of open space, food production, ecosystem services, and the aesthetics of rural areas runs right through agriculture. At the one end stands a rancher, at the other end a developer.” As a result, and for all of the other reasons stated above, we urge the Coronado National Forest to consider ranching, and its use of controlled grazing, as an integral and central theme of the Forest Plan revision process. To do less threatens the very future of the values that the public, the Coronado National Forest and its ranchers share most in common.

## **2. Diminishing T&E Species Numbers Follow Exclusion of Livestock from Their Habitats**

As touched upon above, the Spikedace and the Gila Topminnow went extinct in the upper Verde River and Redrock Canyon, respectively, only after exclusion of livestock from those areas by the Forest Service. Ironically, livestock presence was excluded from both of these areas by the Forest Service as allegedly necessary to properly protect these same and respective T&E listed fishes. As previously mentioned, the Spikedace became extinct in the upper Verde only two years after livestock exclusion, while at Redrock, the Gila Topminnow became extinct after about a decade of livestock exclusion on its purported behalf. Unfortunately, these are not the only tragic examples of species decline resulting from assumptive decision making.

The Northern Mexican garter snake provides yet another example. When Arivaca Cienega became known as an “historic locality for both the Mexican garter snake and Chiricahua leopard frog” in 1970 (Rosen and Schwalbe, 1988<sup>2</sup>), livestock grazing had occurred there for the better part of 300 years and was then currently ongoing. It was only after livestock grazing was eliminated from the vast majority of Arivaca Cienega, however, that “extensive snake trapping carried out in the cienega in 1994 and 2000 yielded a total of 3 checkered garter snakes . . . and a single Mexican Garter Snake (2000), along with a single road-killed black-necked garter snake” (Rosen et al. 2001<sup>3</sup>). Similar observations also hold true for the San Bernardino and Buenos Aires National Wildlife Refuges, the lower San Rafael Valley, the Bog Hole in the upper San Rafael Valley, and the Audubon Research Ranch, where Northern Mexican garter snake

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<sup>2</sup> Rosen, P.C. and C.R. Schwalbe. 1988. *Status of the Mexican and narrow-headed garter snakes (Thamnophis eques megalops and Thamnophis rufipunctatus rufipunctatus) in Arizona*. Unpubl. Report from Arizona Game & Fish Dept. (Phoenix, Arizona) to U.S. Fish & Wildlife Service, Albuquerque, New Mexico.

<sup>3</sup> Rosen, P.C., Wallace, J.E. and C.R. Schwalbe. 2001. *Resurvey Of The Mexican Garter Snake (Thamnophis Eques) In Southeastern Arizona*. Unpubl. Report to Arizona Game & Fish Dept. and U.S. Fish & Wildlife Service. 64p.

populations were also reported to have substantially declined (USFWS 2008<sup>4</sup>) after all livestock grazing was eliminated.

Based on these facts, the rational hypothesis regarding these T&E species' decline is that the exclusion of well-managed, controlled livestock grazing may have contributed to both the diminishment of their numbers and their disappearance from areas of formerly historic and common occurrence. Therefore, we urge the Coronado to include further research of livestock grazing and its controlled use as a tool of possible benefit to fishes, frogs, and garter snakes, consistent with Rosen's recommendation (Rosen et al. 2001, p. 25), as an important and critical component of its revised Forest Plan.

### **3. Arbitrary Snapshot in Time (circa 1880) Is Neither a Relevant nor Reliable Reference for the Development of Desired Future Conditions**

The underlying assumption, seemingly accepted by the Coronado for Forest Plan revision purposes to date, is that because the "pre-settlement" period ended sometime around 1880, and because livestock presence had no lasting environmental effects prior to that time, desired future conditions for the Coronado can be developed based on photographs from, and conjecture relative to conditions thought to be existent, during that period in time. This approach is fundamentally flawed for at least three good reasons.

First, as shown in the chronology of livestock presence attached, it cannot be credibly argued that the presence of livestock had no lasting ecological effects in the Southwest prior to 1880. Instead, as graphically shown in attachment, large-scale stock raising (of both large and small stock) was practiced, subject to intermittent disruption by the Apaches in particular, from 1586 on in northern Mexico and from the 1680s on in southern Arizona (Allen, 1989<sup>5</sup>).

By 1694, 100,000 head of livestock were estimated to be present on ranches which included the upper San Pedro River in southeastern Arizona and the headwaters of the San Pedro and Bavispe Rivers in northeastern Sonora (Allen, 1989). In 1700, 1040 head of livestock (including cattle, sheep and horses) were present at San Xavier del Bac near present day Tucson, while another 1000 head of cattle, along with four droves of horses, were present at nearby San Simon y San Judas del Siboda in northern Sonora (Bolton, 1919<sup>6</sup>).

In fact, by 1700, some of the larger livestock ranches established by the Spanish were those at Sonoita, Babocomari, La Aribac (Arivaca), Calabasas, Sopori, Tubac and San Bernardino in present day southeastern Arizona (Allen, 1989). By 1701, stock

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<sup>4</sup> U.S. Fish & Wildlife Service. 2008. *New 12-month finding for the petition to list the northern Mexican gartersnake as threatened or endangered*. Federal Register, Vol. 73, No. 228, Tuesday, November 25, 2008.

<sup>5</sup> Allen, L.S. 1989. *Roots of the Arizona Livestock Industry*. Rangelands 11(1): 9-13, February, 1989.

<sup>6</sup> Bolton, H.E. 1919. *Kino's Historical Memoir of Pimeria Alta, 1683-1711*. Vols. I, II. The Arthur H. Clark Company, Cleveland, Ohio. 396p., 342 p.

ranches were also established in northern Sonora and southeastern Arizona at Caborca, Tubutama, Imuris, Quiburi (confluence of the San Pedro and Babocomari Creek), Bacoancos, Guevavi, Busanic, San Lazaro, Saric, Santa Barbara and Santa Eulalia (Bolton, 1919).

While it is true that troubles with both the Pimas and Apaches caused the temporary abandonment of many of these livestock operations on many occasions over time, such abandonment was generally relatively short-lived in duration. For example, the Pima Revolt of 1751 lasted only a few months before peace was restored (Bancroft, 1884<sup>7</sup>), and by 1752, the Spanish had established a presidio at Tubac (Allen, 1989). The exception to this general condition is the time period from about 1767, when the Jesuits were expelled from New Spain (Wagoner, 1975<sup>8</sup>), to about 1800, when a period of relative peace with the Apaches ensued. During this 30-40 year time period of general abandonment, however, several large ranches were also established (Allen, 1989).

Beginning in 1800, and lasting through the early 1830s, a time of relative peace with the Apaches resulted in the reestablishment of the same ranches originally founded in the early 1700s by the Spanish. During this time period, approximately 100,000 head of cattle were present on the San Bernardino Ranch alone, and large herds were growing in the Altar, Santa Cruz and San Pedro valleys as well (Allen, 1989). The magnitude of stock raising at this time, on lands either within or adjacent to the present day Coronado National Forest, was high, as is exemplified by the many land grants petitioned for and confirmed during this time period (Wagoner, 1975; see also: chronology, attached).

By 1830, approximately 30,000 head of horses, possessed by the Apaches, were present in the Gila River watershed of present day Arizona and New Mexico (Allen, 1989), and by the early 1830s, renewed Apache depredations resulted in the abandonment of the San Bernardino again, with approximately 100,000 head of cattle going wild (Allen, 1989).

However, not all of the large ranches were abandoned during the early 1830s. The Maria Santisima del Carmen (Buena Vista), for one, was occupied continuously for stock raising from the early 1800s until 1851 (Wagoner, 1975).

Similarly, on the Babocomari, large herds of cattle and horses flourished until 1846. At that time, the Babocomari was one of the largest cattle establishments in the then Mexican state of Sonora (Wagoner, 1975). In 1846, however, renewed depredations by Apaches caused the abandonment of the Babocomari (as well as most other haciendas in the region) and resulted in many thousands of head of cattle, horses and mules going wild (Allen, 1989, Wagoner 1975). Wild cattle became abundant in southern Arizona at this time (Allen, 1989), and in 1851, Bartlett estimated that up to 40,000 head of wild

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<sup>7</sup> Bancroft, H.H. 1884. *History Of The North Mexican States*. Vol. I. 1581-1800. A.L. Bancroft & Company, San Francisco, California. 751p.

<sup>8</sup> Wagoner, J.J. 1975. *Early Arizona: Prehistory to Civil War*. The University of Arizona Press, Tucson, Arizona. 547p.

cattle, plus a large number of horses and mules, then ranged along the entire length of the upper San Pedro River and its tributaries (Wagoner, 1975).

By 1855, the Canoa was occupied by Pete Kitchen and ranches adjoining the Canoa along the Santa Cruz River were also again occupied by 1857 (Wagoner, 1975). With the coming of the Civil War in 1861, and until its end in 1865, Apache depredations again accelerated and caused relocation or abandonment of many ranches. In 1862, Pete Kitchen removed his stock raising operation to Portero, northwest of present day Nogales, and was one of the few ranchers (along with Tom Gardner on Sonoita Creek) who were able to weather the Apache hostilities of the 1861-1865 time period in the Sonoita Creek / Nogales area. On the other hand, during this same time period, Pedro Aguirre established the Buenos Aires Ranch in the Altar Valley in Arizona in 1864 (F&WS, 2008<sup>9</sup>).

By 1870, Maish and Driscoll were running 300 head of cattle at the Canoa (Wagoner, 1975), and by 1876, range use in Arizona was rapidly expanding (Allen, 1989). In 1877, stock raising had become a leading industry in the Arizona Territory with hundreds of thousands of cattle coming in from adjacent states (Allen, 1989).

Although Apache depredations continued through this time period (1870-1886), ranches continued to be established – even in the Apache stronghold of northwest Chihuahua, where, in 1882, Jack Bailey of Texas reestablished the old Spanish hacienda, San Jose de Bavicora, as a massive stock raising operation (Remington, 1893). In 1884, Texas John Slaughter purchased the old San Bernardino (Allen, 1989) and began stocking it again, and, by 1885, Maish and Driscoll were running 10,900 head of livestock on the Canoa alone (Wagoner, 1975).

By 1890, Slaughter & Lang were running 50,000 head of cattle on the San Bernardino. In 1891, 1.5 million head of livestock were estimated to be occupying Arizona's rangelands as a whole (Allen, 1989).

In 1892, the worst drought on record hit Arizona, and during that year, cattle began to die by the thousands. Fifty to seventy-five % of the animals on the range perished during the summer of 1893, and only 250 head of calves were branded between Florence and Tucson that year. By June of 1893, over 200,000 cattle were shipped from Arizona's rangelands (Allen, 1989). How many remained on the ground is a matter of conjecture, although it is highly likely that more than 50,000 head remained on the range at the drought's end.

This is because the drought did not affect everyone equally. Unlike many ranches in Arizona, the San Bernardino had a natural supply of water from the Rio Yaqui drainage and extensive water developments, including drilled artesian wells and a lake backed up by a cement dam. These natural and developed waters saved John Slaughter

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<sup>9</sup> <http://www.fws.gov/southwest/refuges/Arizona/buenosaires/history.html>

during the severe drought of 1892-93 when many other cattlemen went under (Wagoner, 1975; Discover S.E. AZ., 2008<sup>10</sup>).

Similarly, the hacienda San Jose de Bavicora in northwest Chihuahua not only survived, but thrived during the 1892-93 time period. In 1893, 200 cowboys tended thousands of head of cattle and many horses on the San Jose de Bavicora, and there is no contemporary mention of drought (Remington, 1893<sup>11</sup>; Remington, 1895<sup>12</sup>).

Many of southern Arizona's smaller ranches, established during the 1870s and 1880s, also survived the drought of 1892-93 and began to thrive again thereafter. Today, many of these same ranches are sustainably operated by the descendants of those who founded them.

Clearly, as evidenced by the foregoing, desired future conditions for the Coronado cannot be based on conditions thought to exist circa 1880, because it is patent fiction to suggest that that time period somehow represents what "pre-settlement" conditions were like on the Coronado. To base desired future conditions on actual pre-settlement conditions, one must know what those conditions were on the Coronado prior to 1700 (at the latest). Because we do not know what those conditions were, we cannot possibly base desired future conditions on an assessment of actual pre-settlement conditions, let alone attempt to do so by use of the circa 1880 time period as an inadequate surrogate.

Second, desired future conditions cannot be based on a snapshot in time because, unlike a snapshot, the ecosystems of the Coronado never have been, nor currently are, static in nature. Rather, these ecosystems are constantly responding to changes in and the nuances of meteorological regimes. The recent work of Webb, Leake & Turner (2007<sup>13</sup>) is highly instructive in this regard.

Based on 2,724 sets of repeat photographs spanning, in some instances, more than 120 years, these researchers concluded that riparian vegetation was remarkably sparse overall, and only very localized in abundant occurrence, in Arizona during the 1863-1900 time period (Webb, Leake & Turner, 2007). They also establish that riparian vegetation in Arizona experienced a marked and overall increase beginning in about 1940, and did so irrespective of the presence of domestic livestock (*Id.*). These researchers also found that increases in density of riparian woody plants appear to have accelerated after the 1970s, and that those increases were followed by increases in plant size. Moreover, no relation between changes in riparian vegetation and elevation, latitude or longitude was detected (*Id.*).

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<sup>10</sup> <http://www.discoverseaz.com/History/SanBernRnch.html>

<sup>11</sup> Remington, F. 1893. *An Outpost of Civilization*. Harper's new monthly magazine, New York. Vol. 88 (523), December, 1893.

<sup>12</sup> Remington, F. 1895. *Pony Tracks*. Harper and Brothers, New York. 294p.

<sup>13</sup> Webb, R.H., Leake, S.A. and R.M. Turner. 2007. *The Ribbon of Green*. The University of Arizona Press, Tucson, Arizona. 462p.

Further, Webb, Leake & Turner (2007) provide substantial evidence indicating that a period of regional storms, characterized by intensive flood events accompanied by arroyo cutting and filling, beginning during the pre and early settlement periods in Arizona and ending about 1940, was mainly responsible for the relative paucity and/or localization of abundant riparian woody vegetation observed along Arizona's rivers and streams during the 1863-1940 time period. When it is further considered that cottonwood was found to have increased by 69% overall in Arizona since 1940 (*Id.*), the error of basing desired future riparian conditions on riparian conditions as they existed circa 1880 – when riparian vegetation was remarkably sparse overall (as opposed to today when it is far more abundant) – is clearly obvious.

Third, and equally obvious, is the inability of the circa 1880 “pre-settlement” snapshot to include Mesquite, which was very sparse in occurrence on or adjacent to the rangelands of the Coronado prior to the early 1900s, as a species of import in the development of desired future conditions. Today, Mesquite is a predominant tree species, found up to more than 5,000 feet in elevation, on and adjacent to the rangelands of the Coronado. The presence of Mesquite and other thorny pea family shrubs and trees, such as *Mimosa dysocarpa*, Cat-claw mimosa and Cat-claw Acacia, helps support several species of birds whose ranges are predominantly more southerly. Examples of such include Gray Hawks, Varied Buntings, Thick-billed Kingbirds and Violet-crowned Hummingbirds, among several others. Obviously, then, because use of a circa 1880 snapshot as a basis for identifying desired future conditions cannot possibly recognize the importance of Mesquite or these species' close association with it, this methodology of approach fails for this additional reason as well.

Rather, the better and much more defensible approach is to allow sound management, confirmed by scientifically conducted monitoring and assessment, to determine desired future conditions. For ranching and rangelands, scientific protocols are established that include evaluation of riparian health (Fleming, Galt & Holechek, 2001<sup>14</sup>). Moreover, this approach would have great utility because it is consistent with that adopted in the 2008 draft of the Pima County Multi Species Conservation Plan. As a result, we urge the Coronado to adopt sound management, confirmed by scientifically conducted monitoring and assessment, as the determiner or driver of desired future conditions, rather than attempting do so by adoption of an arbitrary period in time.

#### **4. Tourism and Recreational Revenues Are Not Production Dollars and Therefore Cannot be Described or Treated as Such or Relied Upon as Sustainable**

The underlying assumption, seemingly accepted by the Coronado for purposes of Forest Plan revision to date, is that tourism and recreational dollars can be regarded as production dollars. This is certainly not the case. Only actual production creates new wealth without which no economy is fiscally sustainable.

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<sup>14</sup> Fleming, W., Galt, D. and J.L. Holechek. 2001. *Ten Steps to Evaluate Rangeland and Riparian Health*. *Rangelands* 23(6): 22-27.



Here, the tourism and recreational revenues apparently regarded by the Forest to date as production dollars are, in fact, actually second-hand or recycled derivatives of production dollars. As such, their availability is squarely dependent on the health of the production economy that underpins them. Thus, when the economy slows, as it currently has, the availability of these second-hand dollars diminishes and becomes highly undependable. As a result, these derivative dollars do not represent a sustainable or dependable source of revenue that can be readily counted upon by the Forest Service.

On the other hand, revenues provided by ranching are both sustainable and dependable because they are primary, production dollars that contribute to the health of the production economy that underpins them. As a result, we urge the Forest Service to properly segregate tourism and recreational revenues from those revenues resulting from actual production in its revised Forest Plan. We also urge the Forest to recognize, within its revised Forest Plan, that controlled livestock grazing, as a sustainable production economy practice, is critical to the long-term health and sustainability of the Coronado National Forest as a whole (especially in regard to intact landscapes, open land, species benefit and the continuing practice of multiple use).

## **5. Public Access to the Forest Through Private Lands**

While the Forest Plan revision process devotes considerable discussion to this continuing problem, it offers no reasonable solution. Moreover, by dismissing legitimate private landowner liability concerns as merely “perceived,” the Forest Plan revision process to date actually does this continuing problem a disservice while missing a golden opportunity to correct this unfortunate situation.

That golden opportunity is to establish a legal mechanism within the Forest Plan by which landowners who allow public access across their lands to the Forest are immunized from potential liability to the extent allowed by law for doing so. This could be accomplished through contract by which, in exchange for allowing the public access to the Forest through their private lands, private landowners are indemnified by the United States for doing so to the maximum extent allowable under Arizona and federal law. As a result, we also urge the Coronado Forest to adopt this contract approach as the means of addressing and solving the continuing public access through private property problem.

Thank you for the opportunity to comment on the Coronado National Forest’s Forest Plan revision process. We look forward to contributing additional input to the Coronado as this Forest Plan revision process evolves and opportunity allows.

Sincerely,

Dennis Parker,  
Attorney at Law,

Representing the Southern Arizona Cattlemen's Protective Association

cc: Dr. Ted Noon