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ACCLIMATISING THE USEFUL ANIMAL IN THE IBERIAN WORLD AND BEYOND

The Buenos Aires Zoological Garden, the Sociedad Rural Argentina, and the Multiple Goals of Argentine Acclimatization

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Abstract: The Sociedad Rural Argentina (SRA, Argentine Rural Society) and the Buenos Aires Zoo were the two principal acclimatization institutions in Argentina at the turn of the twentieth century. Located directly across the street from each other, both participated in global acclimatization networks, trading information and specimens with peers in Europe, the US, and the Global South. The peak of Argentine acclimatization occurred later than in many countries and served the development of agriculture and the colonization of the interior. Although the SRA and Zoo frequently collaborated, their differing missions and publics meant that the SRA focused on acclimatizing purebred cattle and strengthening Creole livestock for large ranchers, while the Zoo experimented with a broader range of animals and hoped to benefit small farmers and the working class. The history of Argentine acclimatization, which occurred against the backdrop of mass immigration from Europe, provides a counterpoint to imperial narratives and points to regional connections.

Keywords: acclimatization; Argentina; South America; animal husbandry; zoos

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A strange romance developed in Buenos Aires over several spring evenings in September 1917. He was a pedigreed stud horse, temporarily housed at the fairgrounds of the Sociedad Rural Argentina (SRA, Argentine Rural Society) for an exposition. She, a donkey living at the Jardín Zoológico de Buenos Aires (Buenos Aires Zoological Gardens) awaiting her end as food for the lions. Every evening, the stud and the donkey called to each other across the wide boulevard that separated the two institutions, a passionate dialogue of shouted neighs and brays.¹ While destined for dramatically different fates, the two animals found each other in the big city.

This “sad vocal romance,” as zoo director Clemente Onelli called it, highlights the close connections between the Zoo and the Sociedad Rural, as well as ranchers’ and zookeepers’ interest in the reproductive functions of animals. In this article, I look at one specific aspect of the SRA’s and the Zoo’s reproductive projects, namely, the acclimatization of different species. Through analysis of three journals—the *Anales de la Sociedad Rural Argentina* (Annals of the Argentine Rural Society), *Revista del Jardín Zoológico de Buenos Aires* (Journal of the Buenos Aires Zoological Gardens), and the *Bulletin de la Société nationale d’acclimatation de France* (Bulletin of the National Acclimatization Society of France)—as well as contemporaneous documents, I trace their history to establish that both institutions were primary *loci* of late-nineteenth and early-twentieth century acclimatization projects in Argentina. Their focus was mainly on domesticated species that would contribute to the nation’s agricultural development and colonization of the interior. While these projects dialogued extensively with acclimatization projects in Europe and other countries in the Global South, I argue that the non-imperial context, profoundly marked by voluntary European immigration, led to unique manifestations. Analyzing the SRA and Zoo together, as well as their connections with the national, provincial, and municipal governments, also permits a glimpse into the complicated public/private linkages that undergirded Argentine development.

Additionally, although the SRA and the Buenos Aires Zoo often collaborated on acclimatization projects, sharing information and animals, their differing charges and publics created significant variation. The SRA primarily focused on the acclimatization of European cattle for crossbreeding with

¹ Clemente Onelli, “Idiosincrasias individuales de los pensionistas del Jardín Zoológico,” *Revista del Jardín Zoológico de Buenos Aires. Epoca II* 13, no. 51–52 (1917): 201–07, on 206–07.

Creole cattle and exploitation on a large scale, while the zoo experimented with a wider variety of animals and indicated their benefits for smaller (and even urban) producers. Curiously, the zoo and its collaborators also vocally defended native Argentine species, warning of the dangers of the excessive incorporation of exotics. Against the backdrop of mass immigration and changing national demographics, this commentary can also be read as an intervention into contemporaneous debates about the value of human immigrants and the potential loss of some inherent “Argentineness.”

The Sociedad Rural Argentina and the Jardín Zoológico in Context

The last decades of the nineteenth century and first decades of the twentieth century encompassed a period of profound changes in Argentina. Plentiful land, often recently and violently taken from Indigenous populations, entrance in the global capitalist system, and open borders attracted 5.8 million immigrants between 1881 and 1930. Mostly men, they established themselves in Buenos Aires and the fertile littoral lands around it.² This population explosion drove the construction of housing, the development of industry, and the general expansion of the capital’s footprint and influence. For a nation that had been immersed in armed conflict only a few decades prior, stability and modernity finally appeared on the horizon.

Many of these transformations were driven by the development of agriculture (crops and livestock), and, in turn, transformed the agricultural landscape of the nation. The “clearing” of frontiers in the campaigns against Indigenous populations opened new lands to the north, south, and west of the capital.³ The development of transportation infrastructure (especially railroads), agricultural innovation, foreign investment, and the arrival of cheap labor in the form of immigrants led to colonization of the interior and the dramatic expansion

² Benjamin Bryce, “Paternal Communities: Social Welfare and Immigration in Argentina, 1880–1930,” *Journal of Social History* 49, no. 1 (2015): 213–36, on 215–16.

³ The “Conquista del Desierto” campaign in Patagonia concluded in 1885, having forcibly reduced Indigenous communities in the area. Enrique Hugo Mases, *Estado y cuestión indígena. El destino final de los indios sometidos en el sur del territorio (1878–1930)* (Prometeo, 2010), 59. The Northern Chaco was subdued between the 1870s and about 1911. Pablo G. Wright, “Colonización del espacio, la palabra y el cuerpo en el Chaco argentino,” *Horizontes Antropológicos* 9, no. 19 (2003): 137–52.

of cattle and sheep ranching.⁴ These processes were accelerated with the founding of the first British *frigorífico* (meat processing plant) in Buenos Aires Province in 1883. As capital poured into the *frigoríficos*, beef cattle rose in importance, ranchers shifted from wool sheep to meat-producing sheep, and there was increased diversification and the creation of distinct agricultural sectors.⁵ The result was a prolonged economic boom outside of Buenos Aires that lasted until the 1920s.⁶

The rise of the SRA and the Zoo paralleled these demographic and economic changes. The development of vibrant agricultural and ranching sectors led to ever-increasing calls for an agricultural society. Domingo F. Sarmiento (1811–1888), who would go on to be President of the Republic from 1868 to 1874, saw such an association as both an economic and civilizing force and tied it to his wider political program. In an 1857 article in the newspaper *El Nacional*, he took a historic lens and associated free-range cattle with the prior regime of governor-dictator Juan Manuel de Rosas (1793–1877) and his “barbarous” *federales*. In contrast, Sarmiento’s unitarian allies, particularly former president Bernardino Rivadavia, were linked to “jardines de aclimatación” (acclimatization gardens) and systematic husbandry and improvement of breeds.⁷ Eduardo Olivera, an Argentine who earned the degree of agronomist at the École d’agriculture de Grignon in France, picked up the mantle after Sarmiento and became a fervent advocate for the development of an agricultural society. Political strife and other vagaries delayed the project until July 10, 1866, when the Sociedad Rural Argentina was finally founded with the participation of Olivera, Ramón Vitón, Eustaquio Torres Agüero, Ricardo B. Newton, and José Martínez de Hoz.⁸ Early SRA members were wealthy and politically well-connected men, aligned largely (but not completely) with the oligarchic governments of Julio Roca and the Partido Autonomista Nacional (National Autonomist Party) that would rule Argentina from 1880 to 1916.⁹ There was also

⁴ Noemí María Girbal-Blacha, *Ayer y hoy de la Argentina rural: Gritos y susurros del poder económico (1880–1997)* (La Página, 1998), 15, <https://libros.unlp.edu.ar/index.php/unlp/catalog/book/2008>.

⁵ Girbal-Blacha, *Ayer y hoy*, 17–18.

⁶ Girbal-Blacha, *Ayer y hoy*, 31.

⁷ Horacio Juan Cuccorese, “Historia sobre los orígenes de la Sociedad Rural Argentina,” *Humanidades* 35 (1960): 23–54, on 35–37.

⁸ Cuccorese, “Historia sobre los orígenes,” 48.

⁹ Roy Hora, “La Defensa Rural: los terratenientes y el gobierno conservador de Buenos Aires en el ocaso del régimen oligárquico,” *Estudios sociales* 11, no. 20 (2001): 115–41, on 117.

significant overlap with the Ministry of Agriculture, founded in 1898. During its first decades, many of the most important ministers and bureaucrats were members of the SRA and the institutions shared ideas regarding productivity and the social order.¹⁰

According to the “Bases for the Foundation of the Sociedad Rural Argentina,” published in 1866, the Society’s goals included fomenting rural economic activity; promoting the health and morality of rural men; improving irrigation; experimenting with seeds, tools, and breeds; creating a museum for agricultural objects; building an agricultural library and exchanging publications worldwide; improving the production of meat and related products; encouraging commerce and exchange; hosting exhibitions; and publishing a journal.¹¹ That is to say, it encompassed everything agricultural from inputs (land, animals, seeds), to workers and tools, to consumer products and cultural extension. As Alejandra de Arce notes, it thus served “a double function as a social entity and trade union.”¹² Discussions and activities were limited to rural interests. From 130 original members, the society quickly grew, reaching 333 associates in 1878 and over 3,000 by 1916.¹³

The Buenos Aires Zoological Gardens can also be traced to the initiative of Sarmiento. In 1875, the former national president inaugurated the municipal Parque 3 de Febrero in the Palermo neighborhood of Buenos Aires as part of his continued interest in “civilizing” and modernizing Argentina. Against the backdrop of the social issues of an urbanizing and industrializing society, Sarmiento highlighted the green space as an equalizer, claiming, “Only in a vast, artistic and accessible Park will the *pueblo* be a *pueblo*: only here will there be no foreigners or nationals, neither oligarchs nor plebeians.”¹⁴ As

¹⁰ Roy Hora, “Un aspecto de la racionalidad corporativa de la Sociedad Rural Argentina: El problema de la agricultura, 1866–1930,” *Boletín del Instituto de Historia Argentina y Americana “Dr. Emilio Ravignani”* 10 (2nd semester 1994): 31–59, on 55.

¹¹ “Bases para la fundación de la Sociedad Rural Argentina,” *Anales de la Sociedad Rural Argentina* 1, no. 1 (1866): 2–3.

¹² Alejandra de Arce, “Cuando la Sociedad Rural Argentina habla sobre las mujeres. Familia y género en el discurso de la élite agraria en Argentina (1930–1955),” *Arenal* 17, no. 1 (2010): 125–55, on 133.

¹³ Marta E. Valencia, “La Sociedad Rural Argentina. Masa societaria, composición e intereses,” *Estudios de Historia Rural II* 11 (1992): 9–35, on 30; Jorge Newton and Lily Sosa de Newton, *Historia de La Sociedad Rural Argentina* (Buenos Aires: Goncourt, 1966), 170.

¹⁴ In Sergio Pedernera and Estela Pagani, eds., *Sarmiento, espacio y política. El Parque 3 de Febrero* (Buenos Aires: Dirección General Patrimonio e Instituto Histórico de la Ciudad de Buenos Aires,

Antonio Carbone writes, many elites “viewed [the park] as a remedy that had a positive impact on all possible aspects of urban life,” from crime to hygiene to education.¹⁵ Part of the original park was a small zoo, which in 1888 was expanded, moved a few blocks, and given an independent budget and direction. Over the next few decades, first and second directors Eduardo L. Holmberg and Clemente Onelli greatly grew the collections while adding infrastructure and attractions.¹⁶ Attendance swiftly rose to half a million yearly visitors in 1904 and 1.5 million in 1913, equaling the city’s population.¹⁷

Beyond Sarmiento’s influence, their temporal parallels, and spatial proximity, the SRA and Zoo overlapped on many levels. SRA members visited the zoo regularly and subscribed to its journal, where they could read scientific and technical articles as well as humorous depictions of zoo animals. First zoo director Eduardo Holmberg served on juries for various expositions at the SRA.¹⁸ Second director Clemente Onelli further developed ties with the neighboring institution, which he favorably viewed as “so intimately tied to all that represents an indicator of progress and a source of wealth for the nation.”¹⁹ Onelli regularly published in the *Anales de la Sociedad Rural Argentina*, including articles about the Argentine birth of the first Asian elephant born in captivity and the acclimatization of fur animals. He also helped organize and judge several shows at the SRA, including expositions of dogs and poultry.²⁰

2010), 26. The accompanying CD includes images of the original document in Sarmiento’s hand.

¹⁵ Antonio Carbone, *Park, Tenement, Slaughterhouse: Elite Imaginaries of Buenos Aires, 1852–1880* (Frankfurt: Campus Verlag, 2022), 165. For more on the Parque 3 de Febrero and city reforms, see Adrián Gorelik, *The Grid and the Park: Public Space and Urban Culture in Buenos Aires, 1887–1936*, trans. Natalia Majluf (Pittsburgh: Latin America Research Commons, 2022), 22–24.

¹⁶ For histories of the Buenos Aires Zoo, see Diego A. del Pino, *Historia del Jardín Zoológico Municipal*, Cuadernos de Buenos Aires 55 (Buenos Aires: Cuadernos de Buenos Aires, 1979); Eduardo Esparrach and Juan Carlos Sassaroli, *Historia del Zoológico de Buenos Aires: 1888–2020* (Buenos Aires: Vázquez Mazzini Editores, 2022); and Ashley Elizabeth Kerr, *Vida Zoo-cial: The Buenos Aires Zoo and the Making of Argentine Society, 1875–1924* (Nashville: Vanderbilt UP, 2025).

¹⁷ J. M. Cinaghi, “Cuadros estadísticos comparativos,” *Revista del Jardín Zoológico de Buenos Aires. Epoca II* 9, no. 34–36 (1913): 226–37, on 227.

¹⁸ Juan José Ezeyza, “La exposición feria,” *Anales de la Sociedad Rural Argentina* 30, no. 9 (1895): 241–64, on 263.

¹⁹ Clemente Onelli, “La exposición de perros,” *Revista del Jardín Zoológico de Buenos Aires. Epoca II* 8, no. 30 (1912): 163–69, on 163.

²⁰ Onelli, “La exposición de perros,” 163; Clemente Onelli, “La exposición de aves en la Sociedad Rural,” *Revista del Jardín Zoológico de Buenos Aires. Epoca II* 8, no. 31 (1912): 273–76, on 273.

Onelli additionally advertised Sociedad Rural shows in the *Revista del Jardín Zoológico de Buenos Aires* and sold extra specimens to ranchers.²¹

Another point of connection was the two institutions' interest in acclimatization. Scientific efforts to adapt foreign species to local habitats flourished in the nineteenth century, especially alongside European colonial projects.²² These projects had financial and biological implications. Some looked to acclimatize species that were useful in industry, food production, or other commercial ventures. Others aimed to improve native species through hybridization with exotic specimens. Historians focusing on acclimatization in Europe have largely interpreted it as a tool of empire.²³ Others, like Pete Minard, have articulated how colonial subjects in far-flung places have themselves participated in acclimatization, shaping projects to reflect their own interests.²⁴ More recently, scholars have begun to examine acclimatization projects in areas and at times less marked by European colonialism.²⁵

In Argentina, the SRA and the Buenos Aires Zoo were the two principal institutions interested in acclimatization, often working together and/or in connection with the national Ministry of Agriculture. In the following sections,

²¹ Onelli, "La exposición de perros," 68; Clemente Onelli, "Animales de piel fina exóticos e indígenas. Astrakan, skung, vison, etc. ¿Es posible su aclimatación en el país?" *Revista del Jardín Zoológico de Buenos Aires. Epoca II* 4, no. 13 (1908): 83–97, on 92.

²² Warwick Anderson, "Climates of Opinion: Acclimatization in Nineteenth-Century France and England," *Victorian Studies* 35, no. 2 (1992): 135–57, on 135–36.

²³ For example, Helen Cowie, "From the Andes to the Outback: Acclimatising Alpacas in the British Empire," *The Journal of Imperial and Commonwealth History* 45, no. 4 (2017): 551–79, <https://doi.org/10.1080/03086534.2017.1353260>; Pascal Grosse, "Turning Native? Anthropology, German Colonialism, and the Paradoxes of the 'Acclimatization Question,' 1885–1914," in *Worldly Provincialism: German Anthropology in the Age of Empire*, ed. H. Glenn Penny and Matti Bunzl (Ann Arbor: University of Michigan Press, 2003), 179–97; David N. Livingstone, "Human Acclimatization: Perspectives on a Contested Field of Inquiry in Science, Medicine and Geography," *History of Science* 25, no. 4 (1987): 359–94; Harriet Ritvo, "The World as Zoo: Acclimatization in the Nineteenth Century," in *The Ark and Beyond: The Evolution of Zoo and Aquarium Conservation*, ed. Ben A. Minteer et al. (Chicago: University of Chicago Press, 2018), 27–38.

²⁴ Peter Maxwell Minard, *All Things Harmless, Useful, and Ornamental: Environmental Transformation through Species Acclimatization, from Colonial Australia to the World, Flows, Migrations, and Exchanges* (Chapel Hill: The University of North Carolina Press, 2019).

²⁵ See, for example, David Francisco De Moura Penteado, "Brazilian Dromedaries: A History of Acclimatization, Agricultural Modernization, and Camelids, 1857–1867," *Isis* 115, no. 2 (June 2024): 241–66, <https://doi.org/10.1086/730460>; Kerr, *Vida Zoo-cial*; Robert Wilcox, "Zebu's Elbows: Cattle Breeding and the Environment in Central Brazil, 1890–1960," in *Territories, Commodities and Knowledge: Latin American Environmental Histories in the Nineteenth and Twentieth Centuries*, ed. Christian Brannstrom, 218–46 (London: Institute for the Study of the Americas, 2004).

I outline the contours of acclimatization efforts at each institution. In both cases, the projects were mostly developed after the peak and decline of European interest in acclimatization societies. This timing, and the fact that they developed against a backdrop of European immigration and interior colonization, make them a very interesting case study to balance the proliferation of existing literature on imperial Europe.

Acclimatization at the Sociedad Rural Argentina

For historians, interest in the Sociedad Rural Argentina has been mainly based on their political role in the early twentieth century, a conservative force that generally supported the PAN oligarchy.²⁶ The SRA has not yet been examined for its role in the development of acclimatization, despite the fact that early advocates for the formation of the society presented the Paris Acclimatization Society as a potential model.²⁷ Additionally, the guidelines for the Society published upon its founding specifically mention acclimatization in article 6, which posited the need to “study the cattle species that are most suitable to our climate and our social and economic conditions; investigate which of their breeds would most benefit the country for their value, or for their ease of acclimatization.”²⁸ In this sense, acclimatization was at the heart of the SRA’s mission and represented a valuable tool for its goal of modernizing and expanding Argentine agriculture.

One of the SRA’s primary roles in the development of acclimatization projects in Argentina was the dissemination of information from around the world through its monthly journal, the *Anales de la Sociedad Rural Argentina*. From the first issue in 1866 until the end of the period I study, acclimatization is a constant topic. The SRA subscribed to numerous zootechnic and scientific journals, including the *Anales de la Junta Central de Aclimatación* (Venezuela) and *Bulletin de la Société nationale d’acclimatation de France* (France).²⁹ Occasionally, the journal published translations of articles from those journals, such as a study on the acclimatization of turkeys in France by Ernest Lemoine of the French National Aviculture Society.³⁰ Other articles in the *Anales* demonstrate that Argentine contributors were very well read and aware of acclima-

²⁶ Hora, “La Defensa Rural,” 117.

²⁷ Cuccorese, “Historia sobre los orígenes,” 36.

²⁸ “Bases,” 2.

²⁹ “Biblioteca,” *Anales de la Sociedad Rural Argentina* 30, no. 7 (1895): 209–10, on 210.

tization experiments in other parts of the world. This was facilitated by the fact that many ranchers in Argentina were foreign born, thus giving them the linguistic tools to read those texts. Information also travelled from Argentina back to Europe through travelers' reports, letters, and published texts. For example, the SRA sent copies of the *Anales* to the Société nationale d'acclimatation de France (SNAF), which occasionally cited Argentine articles in its *Bulletin*.³¹ In 1921, the SRA also sent 30 pamphlets on parasitology, entomology, breeding, and more to the SNAF, which was noted by the Société as "an important gift."³²

While many SRA members cited European societies, they also turned to territories that had similar histories and/or geographies. The United States, Australia, and South Africa were frequent references, such as in Wilfrid Latham's discussion of sheep acclimatization in Australia, C. F. Ziervogel's assertion that Angora goats would prosper in Argentina because it had the same latitude as the Cape of Good Hope, or Joseph Lignières's comparisons of cattle acclimatization in the warmer parts of the Argentine interior to experiments in Australia and Texas.³³ Looking towards the US and Australia was not unique to acclimatization projects, but echoed larger trends in Argentine literature and politics, such as the Argentine military's formal study of US Indian policy or journalist Roberto Payró's book *La Australia Argentina*, which examined the colonization of Argentine Patagonia through the lens of the Australian experience.³⁴ There was also a small but important network of regional connection. In addition to receiving the journals of societies like the one in Caracas, the SRA published articles on acclimatization experiments in neighboring countries. A continuation of the article on Angora goats mentioned

³⁰ Ernest Lemoine, "Ganadería de dos pies. El pavo de América y su aclimatación," *Anales de la Sociedad Rural Argentina* 40, no. 55 (1906): 49–51.

³¹ See, for example, "L'avenir du mouton," *Bulletin de la Société nationale d'acclimatation de France* 50 (April 1903): 113–33, on 131.

³² Pierre Crepin, "Extraits des procès-verbaux des séances de la Société. Séance generale du 25 avril 1921," *Bulletin de la Société nationale d'acclimatation de France* 68, no. 11 (1921): 190–93, on 190.

³³ Wilfrid Latham, "Contestación a la segunda parte de la publicación del Sr. Hannah," *Anales de la Sociedad Rural Argentina* 1, no. 10 (1867): 305–9, on 306; C.F. Ziervogel, "La cabra de Angora" *Anales de la Sociedad Rural Argentina* 1, no. 14 (1867): 432–35 and 453–57, on 433; Joseph Lignières, "La vacunación de 'La Tristeza,'" *Anales de la Sociedad Rural Argentina* 39, no. 11 (1904): 528–35, on 533.

³⁴ Mases, *Estado y cuestión indígena*, 67. Roberto J. Payró, *La Australia Argentina: Excursión periodística a las costas patagónicas, Tierra del Fuego e Isla de Los Estados* (Buenos Aires: Imprenta de "La Nación," 1898).

above examined acclimatization efforts in neighboring Chile.³⁵ Another article cited the Jardín de Aclimatación de Habana (Cuba) and yet others analyzed livestock acclimatization in Uruguay, a country which often appears in the literature as practically another Argentine province.³⁶ The network was thus not just north-south but involved correspondence and cooperation at a south-south level.

The SRA also engaged in practical acclimatization experiments and encouraged members to attempt their own projects. The society led the purchase and organization of Santa Catalina, a 780-hectare ranch in Lomas de Zamora, Buenos Aires Province, in hopes of establishing an agricultural school and experimental station. In 1881, a commission of SRA members founded the Escuela de Veterinaria (Veterinary School) on the grounds, followed in 1883 by the Instituto Agronómico-Veterinario (Agronomical-Veterinary Institute).³⁷ Additionally, SRA leadership repeatedly stressed the importance of teaching acclimatization at the nation's agricultural schools and insisted that all ranchers should learn about Argentina's different climate zones.³⁸ In 1889, a series of questions in the *Anales* guided readers who wished to share their knowledge in a new column titled "Agricultural and Livestock Information." Many of these questions related to acclimatization.³⁹

Unsurprisingly, given the makeup of Argentine agriculture, most of the articles about local projects in the *Anales* focused on the acclimatization of cattle. The main littoral area around Buenos Aires had a gentle climate to which it was fairly easy to adapt animals, but it was already densely populated, with correspondingly more expensive land. The reduction of Indigenous communities and development of infrastructure meant that the interior presented new opportunities if enterprising ranchers could figure out how to

³⁵ Ziervogel, "La cabra de Angora," 454–55.

³⁶ "Miscelánea," *Anales de la Sociedad Rural Argentina* 19, no. 15 (1885): 349–51, on 351. José R. Muñíos, "Campos de Aclimatación en la Argentina y el Uruguay. El de Paysandú (R.O.)," *Anales de la Sociedad Rural Argentina* 40 (1906): 62–69.

³⁷ Osvaldo Fabián Graciano, "Los caminos de la ciencia. El desarrollo inicial de las ciencias agronómicas y veterinarias en Argentina, 1860–1910," *Signos Históricos* 12 (December 2004): 9–36, on 18. Santa Catalina was originally under the government of Buenos Aires Province; the school was later moved to the provincial capital of La Plata.

³⁸ Ricardo Huergo, "La enseñanza agrícola superior," *Anales de la Sociedad Rural Argentina* 45, no. 71 (1910): 57–67, on 58.

³⁹ "Información agrícola y ganadera," *Anales de la Sociedad Rural Argentina* 23, no. 16 (1889): 366–67, on 366.

acclimate desirable breeds to the subtropical warmth of the north and the harsh deserts of the south. By 1901, the Society felt comfortable decreeing that purebred cattle were acclimated to the littoral zone and thus ready to “form, in turn, propagation centers of large livestock and renew the Creole stock through the transfusion of excellent blood” in other provinces.⁴⁰ The acclimatization of sheep, goats, and pigs was also of interest to the SRA. These animals appeared in profiles in the *Anales* that discussed their physiology and economic value, as well as techniques and challenges to acclimatization.

To illustrate some of the primary characteristics of the SRA’s acclimatization projects, I want to look at a case study: the acclimatization of purebred cattle, particularly the Hereford and Durham breeds, in the northern regions of Jujuy and Chaco. SRA members, including the Leach brothers in Jujuy, hoped to acclimatize studs that could be crossed with Creole cows, creating a larger and more productive breed.⁴¹ Successful acclimatization would open huge swaths of new territory that could be obtained at an economical price and would greatly increase the amount of meat that Argentina could export. However, early efforts were stymied by subtropical temperatures and, more worryingly, the prevalence of *Rhipicephalus microplus* ticks, which carry the parasites *Babesia bovis* and *Babesia bigemina*, as well as the bacteria *Anaplasma marginale*. These three microorganisms cause *tristeza* (“Bovine babesiosis and anaplasmosis complex” or “tick fever” in English), a disease characterized by anorexia, anemia, tachycardia, reduced milk production, and often death.⁴² Around the turn of the twentieth century (and even today), *tristeza* led to huge economic losses. Argentine ranchers who purchased purebred animals from European traders lost more than half of the herd in the first few months. Warm temperatures weakened cold-weather cows, making them more susceptible to infection, while *tristeza*’s symptoms made them more susceptible to the effects

⁴⁰ Manuel Bernárdez, “La exposición a vista de pájaro,” *Anales de la Sociedad Rural Argentina* 35 (1901): 280–92, on 282.

⁴¹ Bernárdez, “La exposición a vista de pájaro,” 282.

⁴² Pablo Parodi et al., “Description of Bovine Babesiosis and Anaplasmosis Outbreaks in Northern Uruguay between 2016 and 2018,” *Veterinary Parasitology: Regional Studies and Reports* 29 (April 2022): 100700, <https://doi.org/10.1016/j.vprsr.2022.100700>.

of warm temperatures.⁴³ As some ranchers concluded, *tristeza* was the “current plague that most hinders the progress of our beef production.”⁴⁴

Successful acclimatization of purebred cattle thus required moderating the effects of heat and reducing the impact of *tristeza*. These efforts involved a network of SRA members and correspondents from numerous fields. In 1898, the SRA founded the Instituto Bacteriológico (Bacteriological Institute) on their grounds in Palermo and named French veterinarian and bacteriologist Joseph Lignières director. Two years later, the national government incorporated the Institute into the Ministry of Agriculture but left the director in place.⁴⁵ Lignières, who remained a corresponding member of the SRA, proposed that vaccination could be an effective strategy against *tristeza*, recommending vaccinating young stud animals in the littoral and then sending them north a few weeks later when they had recovered from any side effects. They also needed to be sent north in the fall and winter to acclimate before tick season began in earnest.⁴⁶ To prove his hypotheses, Lignières partnered with Saturnino J. Unzué, who owned a ranch in the province of Buenos Aires.⁴⁷ They vaccinated Unzué’s cattle, exposed them to the problematic ticks, then carefully acclimatized them with cold baths, special food, mandatory rest during the heat of the day, and airy barns with metal shades to keep out flies.⁴⁸ Lignières claimed that vaccination took the survival rate from 10% or less to over 60%, and careful acclimatization further increased the rate to 70–90%.⁴⁹ He bragged, “There is no doubt that the crossbreeding of vast and wealthy regions of the North enters a new phase, full of promising results, starting today. It is also important to note that, with the current vaccination against ‘Tristeza,’ the Argentine Republic is, from this perspective, ahead of other nations.”⁵⁰ In 1905, Minister of Agriculture Damián M. Torino formed a commission composed of

⁴³ Joseph Lignières, “‘Tristeza.’ La vacunación polivalente,” *Anales de la Sociedad Rural Argentina* 38, no. 2 (1903): 674–79, on 678–79.

⁴⁴ José R. Muiños, “Campos de Aclimatación en la Argentina y el Uruguay,” *Anales de la Sociedad Rural Argentina* 42 (1907): 62–69, on 68.

⁴⁵ Graciano, “Los caminos,” 23–24.

⁴⁶ Lignières, “‘Tristeza,’” 679.

⁴⁷ Unzué was also involved with European acclimatization projects, sending six rheas to France in 1909. Edmond Perrier, “Distribution des récompenses,” *Bulletin de la Société nationale d’acclimatation de France* 56 (1909): 3–12, on 11.

⁴⁸ Joseph Lignières, “La vacunación de ‘La Tristeza,’” *Anales de la Sociedad Rural Argentina* 39, no. 11 (1904): 528–35, on 531.

⁴⁹ Lignières, “La vacunación,” 532.

⁵⁰ Lignières, “La vacunación,” 534.

the doctors Eliseo Cantón, Carlos Malbrán, Telémaco Susini, Marcelo Viñas, and Professor Salvador Baldazarre to complete laboratory tests of the efficacy of Lignières's vaccines for carbuncles, pasteurellosis, and *tristeza*.⁵¹ They found all three to satisfactorily immunize animals and thus recommended they be distributed to ranchers.⁵² Lignières's work on *tristeza* and cattle acclimatization, as well as his collaboration with the French Société nationale d'acclimatation's efforts to acclimatize rheas in France, earned him a gold medal from the French government in 1909.⁵³ He was also made a knight of the Société's Legion of Honor in 1911 and promoted to officer in 1920.⁵⁴

In 1907, a series of Argentine and Uruguayan ranchers, including Tomás E. Anchorena and José M. Llobet, teamed up to commercialize Lignières's results across the country. They formed an LLC named "Campos de Aclimatación" that would exploit Lignières's innovations in tick-infested areas, including Santa Fe, Corrientes, and Entre Ríos, as well as in Uruguay and Paraguay.⁵⁵ Their first establishment was in Paysandú, Uruguay, with one hundred Durham and one hundred Hereford cows. There, the cows would be subjected to strict acclimatization and vaccination protocols, then sent to other parts of the region to inseminate Creole cattle. The author of an article about this new ranch recalled feeling "patriotic jubilation" upon seeing "this great establishment destined to exert such a big influence on the future of national livestock farming."⁵⁶ Thus, acclimatization was once again linked to the development of the nation, as well as nationalist sentiment that connected Argentina's place in the world to its agricultural success.

Acclimatization also played a role in another, more unique approach to combating *tristeza*. This time, two men with the Sociedad Protectora de Animales (Society for the Protection of Animals), Luis R. Scheiner and Artemio Carreras, visited the SRA with a proposal. Their research had shown that the

⁵¹ Telémaco Susini et al., *Estudio e informe presentado al Ministerio de Agricultura por la Comisión encargada de investigar la eficacia y poder inmunizante de las vacunas contra el carbunclo, pasteurelas y tristeza preparadas por el Profesor José Lignières* (Buenos Aires: Talleres de Publicaciones de la Oficina Meteorológica Argentina, 1906), 5.

⁵² Susini et al., *Estudio*, 20.

⁵³ Perrier, "Distribution," 11.

⁵⁴ Edmond Perrier, "Discours," *Bulletin de la Société nationale d'acclimatation de France* 59 (1912): 262–75, on 275. "Actes de la Société d'Acclimatation," *Bulletin de la Société nationale d'acclimatation de France* 67, no. 10 (1920): 145.

⁵⁵ Muiños, "Campos de Aclimatación," 62.

⁵⁶ Muiños, "Campos de Aclimatación," 69.

totí (*Ptiloxena atrovioleacea*, or Cuban blackbird), fed almost exclusively on the kind of tick that caused *tristeza*. They asked the SRA for financing and requested that several members travel to Cuba. There, they would speak with a scientist who had specialized knowledge and discover the best way to import and acclimatize the *totí* to Argentina. If the group saw a path forward, they planned to ask the national government to purchase Cuban *totís* to acclimatize.⁵⁷ It is unclear why the Sociedad Protectora, founded in 1881 to ensure the good treatment of animals, took an interest in this particular topic. There was overlap in membership during this period, with at least one SRA president, Carlos M. Casares, who was also a member of the Sociedad Protectora.⁵⁸ The devastating effects of *tristeza* on cattle may have also motivated the animal defense group to research and act.

These efforts to acclimatize cattle illustrate several themes also present in other SRA acclimatization projects and the literature about acclimatization in the *Anales* in general. First, the SRA and its members largely focused on improving domestic species already widespread in Argentina, including cows, sheep, pigs, and goats. The projects almost always involved purchasing exotic purebreds that, once acclimatized, could be crossed and improve Creole species. Of course, all large livestock in the Americas were once exotics brought by Spanish colonists, but by the early nineteenth century they were so well-established as to be considered “native.” Second, the projects involved actors from numerous Argentine institutions: ranchers, government officials, scientists, and others interested in agricultural development. Public/private divides were often bridged in the name of science, and scientists’ overlapping memberships ensured the collaboration of various institutions. Third, the SRA’s acclimatization projects were focused on scale: they were not being undertaken by small farmers, nor were they designed to help them. These innovations would primarily benefit wealthy ranchers with large herds. Finally, the animals that the SRA chose to acclimatize were useful in terms of their economic benefit to the agricultural sector: either they themselves would produce more milk, beef, wool, etc., or they could be crossed with local species to strengthen them and/or improve their yields. Even the *totí* bird, imported for its

⁵⁷ “Actas de Sesiones: Año de 1905,” *Anales de la Sociedad Rural Argentina* 40 (1905): 113–20, on 114.

⁵⁸ Silvia Ulrich, *Los perritos bandidos: la protección de los animales de la Ley Sarmiento a la Ley Perón*, 2a edición (Buenos Aires: Tren en Movimiento, 2015), 71.

pest-eating properties, ultimately served the goal of improving Argentine agriculture. Thus, the acclimatization projects of the SRA supported the society's established goals and protected its members' interests. Given the close ties between SRA members and the ruling oligarchy, their projects were also linked to national priorities and enjoyed the approval and assistance of the Ministry of Agriculture and other governmental entities.

Acclimatization at the Jardín Zoológico de Buenos Aires

As previously mentioned, the SRA collaborated with numerous other institutions; other than the Ministry of Agriculture, one of its primary partners was the Jardín Zoológico de Buenos Aires. Like the SRA, the Zoo's roots were intertwined with a desire to further acclimatization projects in the nation. In 1871, architect and natural historian Enrique D'Almonte advocated for the foundation of a "Jardín Zoológico y Botánico de Aclimatación" (zoological and botanical acclimatization garden) in Argentina. Drawing from European examples, he laid out the why, what, and how of establishing such an institution in Argentina, even drawing up a proposed budget.⁵⁹ When the Buenos Aires Zoo came to fruition in Sarmiento's Parque 3 de Febrero in 1875, it had lost the "de Aclimatación" tag D'Almonte proposed, but acclimatization remained a central purpose. As Sarmiento wrote in Article 5 of Law 658 establishing the park, "Argentine fauna will also be represented by the country's useful or peculiar species, in addition to animals from other countries that will be acquired to promote their acclimatization."⁶⁰ In early years, acclimatization at the zoo referred primarily to getting specimens from foreign countries or other regions of Argentina to adapt to the Buenos Aires climate and the conditions of captivity. These attempts were often unsuccessful, and animal mortality was high.

Once Clemente Onelli took over from Holmberg in 1904, the zoo began to engage in more systematic attempts to acclimate animals that would be useful outside of the zoo. One of Onelli's primary roles was as a clearinghouse of information for those interested in acclimatization. He corresponded extensively with fellow zoo directors, animal traders, and scientists around the world. These connections gave him insights few had into the acquisition of exotic

⁵⁹ Enrique D'Almonte, "Jardín Zoológico y Botánico de Aclimatación," *Anales de la Sociedad Rural Argentina* 7 (July 1873): 225–33.

⁶⁰ Del Pino, *Historia del Jardín Zoológico*, 24.

species, reasonable prices, and even how to overcome the challenges involved in shipping live animals. For example, Pedro Ezcurra, the Argentine Minister of Agriculture, asked Onelli for a report on the acclimatization of fine fur animals, especially regarding their acclimatization in Río Negro, and the cost of such a project.⁶¹ Onelli offered his opinions and wrote that he had received inquiries from two US companies, the Hispano-American Company and Mann Georges Limited, regarding how to acclimatize Argentine fur animals, and especially the chinchilla, in Florida. In his response to Mr. J. Poitevent of Palmetto, Florida, Onelli described the chinchilla's primary characteristics and advised Poitevent that it would be difficult to transport chinchillas to Florida in sufficient quantities for acclimatization. However, he thought it would be possible to export and acclimatize the chinchilla in various parts of Argentina.⁶² He offered to facilitate the relationship between Poitevent and the Argentine government should there be interest in pursuing the opportunity.

Onelli played a similar role in other acclimatization projects. In response to interest in acclimatizing the North American skunk (*zorrito skunk*, according to Onelli) and the American mink, Onelli recommended buying the animals directly from Frank Baker, Director of the National Zoo in Washington, DC, or William C. [sic] Hornaday, director of the New York Zoo. Onelli noted he could personally vouch for the integrity of the men and the quality of their specimens.⁶³ His correspondent, Dr. Brandes, Director of the Halle Zoo, could provide information about how to acquire Angora goats and karakul sheep, or else Carl Hagenbeck, from whom he had previously bought specimens, could. As for the tricky problem of transporting live animals over long distances, Onelli provided the government with the names of Boadle and Etrange Wallace, agents of Lamport Holt in Buenos Aires, who were among the few merchants willing to take the risk.⁶⁴

⁶¹ Clemente Onelli, "Ganadería de pelo fino," *Anales de la Sociedad Rural Argentina* 42–43 (1908): 55–62, on 55.

⁶² Clemente Onelli, "Habitat del chinchilla. Posible aclimatación," *Revista del Jardín Zoológico de Buenos Aires. Epoca II* 3, no. 12 (1907): 341–51, on 349. For a fascinating look at a similar chinchilla acclimatization path from Chile to California, see Ángela Vergara, "The Chinchilla's Journey: From the Andes to California's Breeding Farms, 1880s–1950s," *Animal History* 2, no. 2 (2026): 19–38, <https://doi.org/10.1525/ah.2026.2702223>.

⁶³ Onelli, "Ganadería de pelo fino," 60–61.

⁶⁴ Onelli, "Ganadería de pelo fino," 61.

Onelli also actively experimented at the zoo and in partnership with ranchers, government officials, animal traders, merchants, and scientists across the country and internationally. Some of these projects dealt with domesticated animals like those of interest to the SRA, such as the karakul sheep or the zebu.⁶⁵ Chickens were a particular passion for Onelli, who firmly believed that poultry husbandry was a potential path to self-subsistence and out of poverty for working-class Argentines. His ultimate goal was to “fabricate, as in North America and Europe, a South American breed” with an “ancestral drop of long-suffering Creole blood.” To this end, he called on large-scale national breeders and the Zoo’s own “avicultor” to create this breed, which would be “no more or less acclimatized than the foreign [breeds] but rather very strong in its native environment.”⁶⁶ Onelli himself engaged in Mendelian experiments with the large poultry collection at the zoo and worked to acclimatize several species to Buenos Aires’s climate, most notably the blue-egged Araucanian fowl of Patagonia.⁶⁷ Unlike the SRA, Onelli explicitly postulated these innovations as being for the benefit of all Argentines and worked to disseminate them across social classes. In addition to giving lectures for groups of working-class adults, he also founded a Municipal School of Practical Aviculture to teach best practices to men and women from around the city.⁶⁸ After one year, the school had 109 graduates who now “practiced aviculture in their homes and in various establishments in the area,” ostensibly reaping the benefits of poultry acclimatization experiments at the Zoo.⁶⁹

Other projects were more exotic. On December 24, 1905, Onelli received four pairs of reindeer from Norway when Captain Carl Anton Larsen docked

⁶⁵ On karakul experiments, see Oliver Hochadel, “A Global Player from the South: The Jardín Zoológico de Buenos Aires and the Transnational Network of Zoos in the Early Twentieth Century,” *História, Ciências, Saúde. Manguinhos* 29, no. 3 (2002): 789–812, <https://doi.org/10.1590/S0104-59702022000300012>.

⁶⁶ Clemente Onelli, “Avicultura práctica,” *Revista del Jardín Zoológico de Buenos Aires. Epoca II* 16, no. 61 (1920): 8–22, on p. 18.

⁶⁷ Clemente Onelli, “Meditando sobre la ley de Mendel: Un caso raro no previsto por ella,” *Revista del Jardín Zoológico de Buenos Aires. Epoca II* 4, no. 14 (July 1908): 179–88. Clemente Onelli, “Avicultura. Araucana de huevos azules. Una raza ponedora argentino-chilena,” *Revista del Jardín Zoológico de Buenos Aires. Epoca II* 18, nos. 66–68 (1922): 158–62.

⁶⁸ Clemente Onelli, “La filosofía de la avicultura práctica: Conferencias hebdomadarias en la Universidad Popular de la Boca,” *Revista del Jardín Zoológico de Buenos Aires. Epoca II* 13, nos. 49–50 (1917): 85–98.

⁶⁹ Clemente Onelli, “Jardín Zoológico del Sur,” *Revista del Jardín Zoológico de Buenos Aires. Epoca II* 17, no. 65 (1921): 115–19, on 118.

in Buenos Aires on his way to Antarctica. The circumpolar animals stayed at the Buenos Aires Zoo, relying on blocks of ice to resist the summer heat, until January 13, when five set sail for Ushuaia, Tierra del Fuego. Onelli's report on the reindeer in the *Anales de la Sociedad Rural Argentina* included information about their diet, illnesses, and behaviors, as well as a photograph of the animals in their new home with the men who cared for them. He concluded that the acclimatization of reindeer was successful and the surviving animals "will be the founders of a new Argentine livestock dynasty that will ensure food and therefore progress in certain regions with a difficult climate, poor vegetation, but rich in mines that await the work of man."⁷⁰ In this way, reindeer satisfied the government's desire to find ways to utilize the poor lands of Patagonia and Tierra del Fuego, thus increasing national wealth and encouraging colonization outside of the capital. Indeed, Onelli's interest in acclimatization extended all the way to making recommendations for policy and practice. In 1908, he recommended that the government reserve lands in Río Negro for people or companies who later wanted to establish "farms for fur-bearing animals, both indigenous and exotic."⁷¹ And in 1917, he claimed to be in discussions with the Governor of the northwestern Territory of the Andes "to cooperate in a beautiful project of acclimatization of chinchillas and karakul sheep in that territory."⁷²

Despite this active participation, Onelli did not shy away from expressing concerns about acclimatization and, over time, began to advocate for native South American species over exotics. His relationship to efforts to develop an ostrich feather industry in Argentina illustrate this shift. By the end of the nineteenth century, ostrich feathers were in fashion, decorating hats, boas, fans, dresses, and more and driving interest in acclimatizing the African ostrich in the Argentine pampas. In one of the earliest records of these projects, in July 1900, French-born Mrs. Gabriella Laperrière de Coni, wife of Argentine physician and public-health specialist Emilio Coni, wrote to the Société nationale d'acclimatation to report that a German man who lived near her in Buenos Aires province had a herd of 200 African ostriches. Laperrière de Coni,

⁷⁰ Clemente Onelli, "Ganadería exótica," *Anales de la Sociedad Rural Argentina* 40 (June 1906): 65–69, on 66.

⁷¹ Onelli, "Ganadería de pelo fino," 67–68.

⁷² Clemente Onelli, "El Jardín Zoológico en 1917," *Revista del Jardín Zoológico de Buenos Aires. Epoca II* 14, no. 53 (1918): 70–74, on 72.

a semi-frequent correspondent of the ornithological section of the SNAF, lamented that in six years, the man had been unsuccessful in raising even one chick.⁷³ Despite this failure, others persisted, and in 1904, the *Anales of the Sociedad Rural Argentina* published a photo of an African ostrich at the Buenos Aires Zoo with the title “Una riqueza rural que se desdénia” (“a rural wealth that is disdained”) and called the bird easily acclimatized and very productive.⁷⁴

Just one year later, however, Onelli had doubts about the wisdom of such an enterprise. He still believed that the African ostrich could be acclimatized in Argentina, and that such an industry would be productive. However, he was wary of the intense international competition in the sector: South Africa, Algeria, Tunisia, and even California were already exploiting the ostrich and Argentina would be hard pressed to profit.⁷⁵ Onelli’s analysis of the situation makes clear his knowledge of other global acclimatization projects, as well as the fact that his interest in acclimatization was not strictly zoological, but also financial. He proposed an alternative: the native *ñandú* (rhea, American ostrich). Onelli lamented that the SRA had previously discounted the *ñandú*, with ranchers claiming that it could only give low quality feathers apt for feather dusters, not fashion.⁷⁶ In contrast, his experiments at the zoo led him to conclude that the *ñandú* was, in fact, superior to the acclimatized African ostrich. Beyond the competitive market, African ostriches would only mate with one female, limiting the number of chicks that could be produced per season. Furthermore, Buenos Aires’s clay soil stuck to the African ostriches’ feathers, causing them to scratch themselves and ruin their plumage, eliminating any profit margin. In contrast, the native *ñandú* would mate with several females and was naturally suited for Argentine conditions, making it more prolific, easier to raise, and overall more economical.⁷⁷ He thus suggested prohibiting *ñandú* hunting and instead adapting the bird to life in “semi-freedom” under

⁷³ Comte d’Orfeuille, “2 Section. Ornithologie. Aviculture. Séance du 9 avril 1900,” *Bulletin de la Société nationale d’acclimatation de France* 47 (July 1900): 223–24, on 223.

⁷⁴ “Una riqueza rural que se desdénia,” *Anales de la Sociedad Rural Argentina* 38–39 (1904): 41.

⁷⁵ Clemente Onelli, “Zoología útil. Fauna que desaparece. Su protección. Las alpacas,” *Revista del Jardín Zoológico de Buenos Aires. Epoca II* 1, no. 3 (1905): 241–54, on 244.

⁷⁶ Clemente Onelli, “El avestruz criollo en moda,” *Anales de la Sociedad Rural Argentina* 42 (1908): 70–73, on 70.

⁷⁷ Onelli, “El avestruz criollo en moda,” 72.

controlled conditions that would allow it to reproduce and its feathers to be farmed without killing it.⁷⁸

Simultaneously, he encouraged and assisted European attempts to acclimatize the *ñandú* there. In 1909, he donated one *ñandú* to a project organized by Lignières and the French minister plenipotentiary in Buenos Aires, Eugène Thiébault, that involved shipping live birds to France.⁷⁹ On another occasion, he sent eggs to Alfred Gaspard, editor of the *Chasse et Pêche* journal in Brussels and correspondent of Charles Debreuil of the SNAF.⁸⁰ Onelli also responded to a questionnaire from the Ornithological Congress of Paris in which he explained the *ñandú*'s many advantages. In an article titled "El avestruz criollo en moda" (American ostrich in fashion), he contrasted this foreign interest with what he perceived as a complete neglect in Argentina. He warned: if Argentina did not take advantage of the *ñandú*, others would, and money would flow away the country. If such a situation did come to pass, Onelli recommended at least instating a heavy export tax, such as the 100 pounds per African ostrich charged in Tunisia and Algeria.⁸¹

He reached similar conclusions regarding the value of other native species. When the Argentine government expressed interest in acclimatizing the North American skunk for its fur, Onelli insisted that Argentina already had a useful creature, the *zorrino* (hog-nosed skunk), with long, lustrous black fur. As with the *ñandú*, he argued that it would be better to direct Argentine time and money towards increasing *zorrino* production in its native habitat than to import the foreign skunk.⁸² He concluded that, with the notable exception of cattle, the acclimatization of exotic species was almost always more expensive and required more effort than the domestication of native species.⁸³ It was thus

⁷⁸ Onelli, "Zoología útil," 244.

⁷⁹ Perrier, "Distribution des recompenses," 11.

⁸⁰ Comte d'Orfeuille, "Extraits des proces-verbaux des seances de la Société. II Section. Séance du 1 février 1909," *Bulletin de la Société nationale d'acclimatation de France* 56 (1909): 240–44, on 241–42. In 1910, Onelli was named member of the SNAF. "Liste supplémentaire des membres de la Société," *Bulletin de la Société nationale d'acclimatation de France* 58 (1911): 4.

⁸¹ Clemente Onelli, "Los avestruces en libertad y en domesticidad. Sus costumbres. Postura de huevos. Cría de sus pollitos," *Revista del Jardín Zoológico de Buenos Aires. Epoca II* 1, no. 2 (1905): 150–68, on 166.

⁸² Onelli, "Ganadería de pelo fino," 57–8.

⁸³ Onelli, "Zoología útil," 242.

important that Argentines “never allowed ourselves to be tricked... by the illusions of the exotic.”⁸⁴

Finally, Onelli implied that the results of his experiments with acclimatization, especially the protection of the native, had implications for human populations as well. At first glance, the goals of acclimatization—invigorating local species, economic benefits, populating remote territories such as Chubut, Santa Cruz, and Tierra del Fuego—mirrored the arguments for human immigration to Argentina. By 1914, over half the capital’s population was foreign-born, while northern and frontier provinces like Corrientes, Jujuy, Formosa, and Neuquén had less than 7% immigrant populations.⁸⁵ Reindeer and karakul sheep could provide the financial incentive for people to move to the provinces, while also themselves modeling the ability of foreigners to thrive in the interior.

However, by the early twentieth century, many Argentines also expressed concern about the large numbers of immigrants arriving in the country, associating them with poverty, crime, and the risks of heterogeneity. The Buenos Aires Zoo played a role in these debates over national identity, confirmed through further analysis of Onelli’s writings on acclimatization, where Onelli often paralleled native species and “Creoles,” or native-born Argentines.⁸⁶ For example, when lamenting the disdain for the *ñandú* he wrote that there was no reason to “discount the poor native [rhea] who, like a good Creole, knows his needs and lives perfectly in his homeland’s environment, paying, if you will, his modest tribute.”⁸⁷ In broader nativist discourse of his time, Creoles were often juxtaposed with both Indigenous populations (savage) and immigrant populations (heterogenous and potentially dangerous). Calling *ñandús* and other native species such as guanacos and *zorritos* Creoles served these political and identitarian projects on both sides: the Creole label makes them “Argentine” while also eliding the fact that they evolved in close contact with native tribes, thus erasing Indigenous people from both Argentina’s natural/national history and present demography. Onelli’s musings on the *ñandú* also

⁸⁴ Onelli, “Ganadería de pelo fino,” 62.

⁸⁵ Fernando Devoto, *Historia de la inmigración en la Argentina*, 2nd ed. (Buenos Aires: Sudamericana, 2004), 298.

⁸⁶ For more on the Zoo’s participation in debates over cosmopolitanism, see Kerr, *Vida Zoo-cial*, chapter 3.

⁸⁷ Onelli, “El avestruz en moda,” 71.

stressed the need to rationally exploit the animal in fenced farms, juxtaposing this “civilized” husbandry with the seemingly chaotic, unregulated practices of Indigenous communities. At the same time, by elevating native species over exotics, Onelli signaled that there were limits to cosmopolitanism and immigration’s benefits. Nothing good could come from an excessive preference for the foreign at the expense of the Creole: African ostriches might appear more profitable at first glance, but the native *ñandú* truly held value. In the face of mass immigration and growing concerns over a loss of “Argentineness,” Onelli’s defense of the *ñandú* and rejection of acclimatization suggested that more attention be paid to Creole animals of all sorts, from *Rhea americana* to *Homo sapiens*.⁸⁸

From Acclimatization to National Parks

As this analysis has shown, Argentine acclimatization projects proliferated in the last decade of the nineteenth century and first decades of the twentieth, contemporaneous with significant demographic, political, and economic changes. A diverse range of players, including ranchers, scientists, provincial and national governments, and the zoo worked to identify useful species and determine how to make them thrive in Argentina. Unsurprising in a country that possessed an abundance of land and was counting on its beef industry to propel itself into the global market, most of the efforts focused on domesticated animals, especially cattle. After an initial period of acclimatizing purebred studs to the littoral region, these projects set their sights on cross-breeding those purebreds with Creole cows in the newly pacified, waiting-to-be-colonized regions of Patagonia and the Chaco.

These efforts were not isolated, but part of a global network. Although chronologically later to most European and US acclimatization societies, the SRA and the Buenos Aires Zoo drew on European expertise, primarily through written correspondence and the exchange of publications. The Argentines also provided European scientists and agriculturalists with raw materials and information for their acclimatization efforts. This is most notable regarding plans to introduce the *ñandú*, or rhea, to France; the Spanish were also aware of ostrich acclimatization efforts in Buenos Aires and La Plata and used them to

⁸⁸ For more on Onelli’s nativism and its relationship to the growing “criollismo” movement, see Kerr, *Vida Zoo-cial*, 108-14.

partially guide their own projects.⁸⁹ As Oliver Hochadel concludes, “The JZBA [Jardín Zoológico de Buenos Aires] was thus a global player from the South.”⁹⁰

The journals of the SRA and the Zoo show that Argentines also drew parallels with and learned from acclimatization practices in Australia, South Africa, and regional counterparts such as Chile and Uruguay. Unlike Europe, these countries were viewed as having similar climactic, political, economic and/or social conditions, and were, in the case of South American countries, geographically closer, potentially facilitating the trade in animals. To what degree did these perceived parallels lead to similar acclimatization experiences? The Argentines’ own cooption of Uruguayan ranches into a general Río de la Plata schematic indicates points of connection there. Similarly, De Moura Pentado’s analysis of Brazil and its focus on introducing domesticated species to improve the country’s agriculture, especially in the interior, suggests that Argentina and Brazil had quite a bit in common.⁹¹ Further research is needed to analyze if other countries employed similar models, whether information about Argentine acclimatization experiments was distributed to Venezuela, South Africa, Australia, etc., and if the crossover in discourse from animal acclimatization to human immigration occurred in other American countries, or if it was uniquely a product of Argentina’s historical moment.

As for the two institutions at the center of this analysis, there was significant overlap in the purpose and functions of the SRA and the Zoo. SRA members collaborated with the Zoo and with government officials on projects involving fur animals, sheep, and other domesticated species. SRA members also purchased specimens from the zoo, while the *Anales de la Sociedad Rural Argentina* published multiple articles on acclimatization written by zoo director Clemente Onelli. Despite these parallels, however, there were significant differences. At the Zoo, Onelli attempted the acclimatization of a wider variety of animals, going beyond cattle and sheep to experiment with reindeer, alpacas, and zebus. The SRA projects almost entirely served the needs of wealthy landowners with large herds, who represented the majority of its membership.⁹² The Zoo’s experiments were occasionally oriented towards

⁸⁹ General José María de Casanova, *La explotación de la riqueza de los avestruces en España* (Madrid: G. López de Horno, 1913).

⁹⁰ Hochadel, “A Global Player,” 807.

⁹¹ De Moura Pentado, “Brazilian Dromedaries,” 242.

⁹² De Arce, “Cuando la Sociedad Rural,” 133.

large-scale ranching, but Onelli also spoke on the importance that acclimatized poultry and some wool animals could have for individual families and small farms. This makes sense, as the zoo was intended to be open to all, regardless of their social class. The SRA projects were also entirely masculine, with male ranchers publishing information for other male ranchers.⁹³ At the zoo, however, women were welcomed at the Municipal School of Practical Aviculture and thus reaped some of the benefits.

Over time, the Zoo's director, Clemente Onelli, also developed a much more ambivalent attitude towards acclimatization than that seen among SRA members. While he continued to support limited acclimatization in cattle ranching, he developed serious doubts about the benefit of acclimatizing other exotic species, noting that the effort and cost was too high. He also expressed concerns about the disappearance of native species in a way that sometimes put him at odds with the SRA. When ranchers from the southern province of Santa Cruz lobbied for the guanaco to be officially declared a "national pest" and thus hunted mercilessly, Onelli was appointed part of a commission that met with the ranchers' representatives. Given his belief in the value of native species, Onelli was against the declaration and instead proposed a government-financed fur industry that could slowly reduce the guanaco population and hopefully limit their impact on ranchers' land and flocks without wholesale slaughter.⁹⁴ Like with the *ñandú*, he believed that conservation and capitalism could go hand in hand; indeed, assigning native animals financial value could be essential for their preservation.

Nonetheless, Onelli also came to believe that the development of "rational exploitation for industry" had not been enough to protect key native species. Guanacos, capybaras, nutrias, and foxes had been overhunted, with no sign of stopping. When World War I diverted US and European fishing boats from Argentine shores, whale, seal, and penguin populations soared, demonstrating how species could rebound if hunting was suspended.⁹⁵ Onelli consequently recommended the creation of national marine reserves in Patagonian waters

⁹³ De Arce, "Cuando la Sociedad Rural," 136.

⁹⁴ John Soluri, *Creatures of Fashion: Animals, Global Markets, and the Transformation of Patagonia, Flows, Migrations, and Exchanges* (Chapel Hill: The University of North Carolina Press, 2024), 138.

⁹⁵ Clemente Onelli, "Parques Nacionales de Reserva," *Revista del Jardín Zoológico de Buenos Aires* 14, no. 53 (1918): 28-38, on 29.

and protections for land animals throughout the country.⁹⁶ He lamented the encroachment of hunters and *frigoríficos*, as well as the difficulty of enforcing regulations in sparsely populated territories, and vigorously maintained the necessity of finding solutions to the problem of declining native species populations, even if they went against ranchers' interests.⁹⁷ His untimely death in 1924 limited the effect he might have had on conservation, but these comments and his quixotic quest for a Patagonian plesiosaur in 1922 did direct public attention to the area contemporaneous to the development of the Nahuel Huapi National Park, seated on land donated by Onelli's first Argentine collaborator, Francisco P. Moreno.⁹⁸

In sum, this analysis demonstrates that the SRA and Zoo are best viewed as complementary institutions, communicating across Avenida Sarmiento like the stud horse and donkey, but ultimately differentiated by their stakeholders, priorities, and approaches to acclimatization. Together, they illustrate the complex webs of actors involved in Argentine national scientific and agricultural projects, bringing together private and State institutions as well as information, scientists, societies, and animals from around the globe.

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Competing Interests

The author declares that there are no conflicts of interest regarding the publication of this paper.

⁹⁶ Onelli, "Parques Nacionales de Reserva," 30.

⁹⁷ Onelli, "Parques Nacionales de Reserva," 34–37.

⁹⁸ On the development of Nahuel Huapi National Park, see Emily Wakild, *A Moderating Force: Conserving Nature in National Parks in Patagonia and Amazonia* (New York: Oxford University Press, 2026).