Chapter 11
Guantánamo 2.0: Transforming Gitmo into a Peace Park and Ecological Research Center

Joe Roman

Conservation is a basis for permanent peace.
– Franklin Delano Roosevelt, 1944

Abstract Cuba has a long history of environmental protection, with a network of more than 250 national parks and protected areas, and relatively high levels of fish biomass and marine biodiversity in marine parks that are unparalleled in the Caribbean. There is concern that the normalization of relations between the United States and Cuba might reverse the country's advances in ecological conservation. In this chapter, I propose an approach to protect Cuba's coastal ecosystems and enhance conservation and ecological research throughout the Caribbean. After helping Cuba fight for independence from Spain, the United States occupied the island in 1898. As part of the Cuban-American Treaty, which granted Cuba independence in 1902, the new country was required to rent Guantánamo Bay to the United States as a coaling and naval station, a perpetual lease that could be broken only by mutual consent. The present U.S. policy is that withdrawal from the base is not an option. Cuba insists on an unconditional return of the land as part of normalization. There is a third path that would benefit Cuba, the United States, and the rest of the world. Once the military prison at U.S. Naval Station Guantánamo Bay is closed, the entire base should be repurposed into a state-of-the-art research institution and peace park, a conservation zone to help resolve conflicts between the two countries. A first step in returning the land to Cuba, this model could unite both nations in joint management, rather than serve as a wedge between them. By bringing together Cuban, U.S., and international scientists, artists, and scholars, Guantánamo could help all countries meet the challenges of climate change, mass extinction, and declining coral reefs.

J. Roman (✉)
Gund Institute for Environment, Rubenstein School of Environment and Natural Resources, University of Vermont, Burlington, VT, USA

T. R. Lookingbill, P. D. Smallwood (eds.), *Collateral Values*, Landscape Series 25,
https://doi.org/10.1007/978-3-030-18991-4_11

11.1 Introduction

Cuba has approximately 5000 km of coastline, including coral reefs, mangroves, seagrass beds, and tropical wet forests. Long stretches of coast remain undeveloped, with relatively high levels of fish biomass and marine biodiversity that is unparalleled in the Caribbean (Whittle and Rey Santos 2006; Newman et al. 2006). At the same time, Cuba has transformed agricultural production: since the 1990s, when support from Russia ended along with the dissolution of the Soviet Block, it turned to low-input production methods, such as organic farming and urban agriculture.

But things are changing quickly. Just a few of years ago, few would have foreseen the 2014 reopening of the U.S. embassy in Havana or Obama's 2016 visit to Cuba. These changes are enticing, laying the groundwork for the end of 50 years of U.S. economic sanctions (the embargo or *bloqueo*) against the Caribbean nation. They have the potential to increase economic opportunities in Cuba, but conservation efforts and sustainable agriculture are both potentially threatened by the opening of U.S. tourism and business. Will pressure from U.S. companies such as the agricultural giant Cargill, Starwood Hotels, and Carnival Cruise Line catalyze large-scale changes on the Cuban islands, or will environmental legislation protect the nation's coastal ecosystems? All too often, biodiversity — native animals, plants, and fungi — becomes collateral damage on the road to economic development.

There are hopeful signs that the United States and Cuba can work together to conserve nature. An agreement between the two countries created sister sanctuaries in November 2015, including the Florida Keys National Marine Sanctuary and Guanahacabibes National Park on the Cuban west coast. The U.S.-based Environmental Defense Fund has been working with Cuba to help implement its first National Plan of Action for Sharks and Rays. *The Bulletin of Marine Science*, based at the University of Miami, recently published a special issue on Cuban marine ecology and conservation, after years of rejecting manuscripts by Cuban scientists without review under U.S. sanctions (Roman 2018). After decades of being cut off from the United States, the Cuban people will make environmental policy decisions, with the anticipated pressures of normalization. But there is one 116.5-square-km block of land and water on Cuba's coast where United States will play a direct role in coastal management: Guantánamo Bay.

The Guantánamo Bay Naval Base is unique among U.S. overseas naval stations (Fig. 11.1). A treaty signed by the United States and Cuba in 1903, after the war for Cuban independence from Spain, established the United States' right to maintain naval stations in Cuba. The U.S.A. continues to assert the validity of this treaty. Cuba claims that the treaty, signed when it was under occupation, is illegal and the area should be returned. The United States has made it clear that the future of Guantánamo Bay is not on the table in negotiations with Cuba (Holpuch 2015). At the same time, former Cuban president Raúl Castro demanded the return of the base, accepting nothing short of complete and unconditional withdrawal by the United States. Many former U.S. officials have acknowledged that the return of the

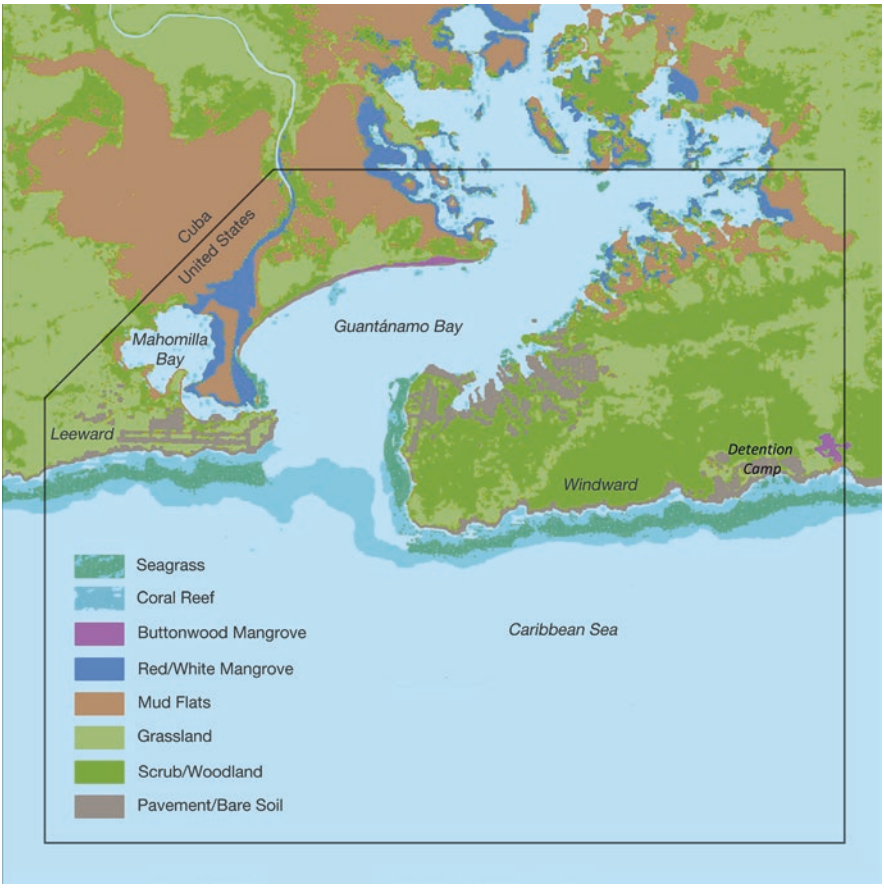

Fig. 11.1 Natural wetland and marine habitats on the Guantánamo Naval Base

base will occur at some point, though progress is unlikely until the remaining Guantánamo Bay detainees, foreign terror suspects captured after the attacks of September 11, 2001, are transferred, tried, or released. Despite the campaign rhetoric of Donald Trump, at this writing, 18 months into the new administration, there have been no new detainees sent to Guantánamo and one release (New York Times 2018). "It's probably inevitable that we'll have to give it back to Cuba," Admiral James Stavridis, the Supreme Commander of NATO between 2009 and 2013, has acknowledged, "but it would take a lot of diplomatic heavy-lifting" (Miroff 2015). He later added, "The odds of the U.S. needing the base for combat operations are essentially nil" (Stavridis 2015).

In this chapter, I present a third path for the future of Gitmo: converting the base into an international peace park and research station dedicated to international conservation and the enhancement of diplomatic relations between the two countries. The restoration of the Guantánamo Naval Base will require imagination, research,

and good stewardship, an approach that recognizes the historical links between the countries, acknowledges the uses and tensions in the region, and provides a protected landscape and seascape that can serve as a hub for Caribbean conservation. As a first step, the restricted waters surrounding the base could be set aside as a no-take marine-protected area, conserving endangered species and acting as a nursery for surrounding communities reliant on fishing. A second phase would involve converting the base to a peace park, dedicated to protecting native wildlife and converting the military facilities to a research station. These moves would initiate the return of the area to Cuba, using environmental and scientific diplomacy as a bridge between the two countries.

11.2 History

Guantánamo is the United States' oldest overseas base, and the only one located in a hostile nation. Its roots are embedded in the late-nineteenth-century quest for U.S. sea power. Before Theodore Roosevelt became president—and before he participated in the Battle of San Juan Hill, just east of Santiago de Cuba—he and his allies agreed on the need to drive the Spanish out of Cuba and increase naval presence in the region. In 1895, Henry Cabot Lodge, Massachusetts senator and close friend of Roosevelt's, wrote in *Forum*, an influential journal, "We should have among those islands [of the West Indies] at least one strong naval station, and when the [Panama] canal is built, the island of Cuba… will become to us a necessity" (Lodge 1895).

The Cuban fight for independence dates back to 1868, when sugar-plantation owners and their allies rose up against the Kingdom of Spain. During the final months of the struggle, and after a series of unsuccessful uprisings, U.S. forces joined the Cubans, occupying Guantánamo Bay for use as a naval coaling station. In 1898, the United States and Spain signed the Treaty of Paris: Spain relinquished sovereignty over Cuba, and a U.S. Army officer was appointed as the provisional governor. As the Cubans gathered for their Constitutional Convention in 1900, the administration of President William McKinley pressed to establish naval bases on the island. The Americans were concerned about German plans—perhaps exaggerated in the interest of expanding U.S. influence in the region—to seize a base in the Caribbean, for a possible attack on the U.S. East Coast (Schwab 2009). After American gunboats surveyed the Cuban coastline, one commander claimed that the "best site in the Caribbean," was Guantánamo Bay, with a hundred miles of waterfront, a deep-water channel, and 25 square miles of open water.

In 1901, with American forces still in Cuba, the U.S. Senate passed the Platt Amendment, which included provisions that allowed the United States to access land for naval bases and interfere freely in Cuban affairs. Delegates at the Constitutional Convention were told that the United States would not withdraw its troops until the amendment was approved in its entirety. The amendment passed on a vote of 15–14, with a few minor changes and plenty of protests. (The United

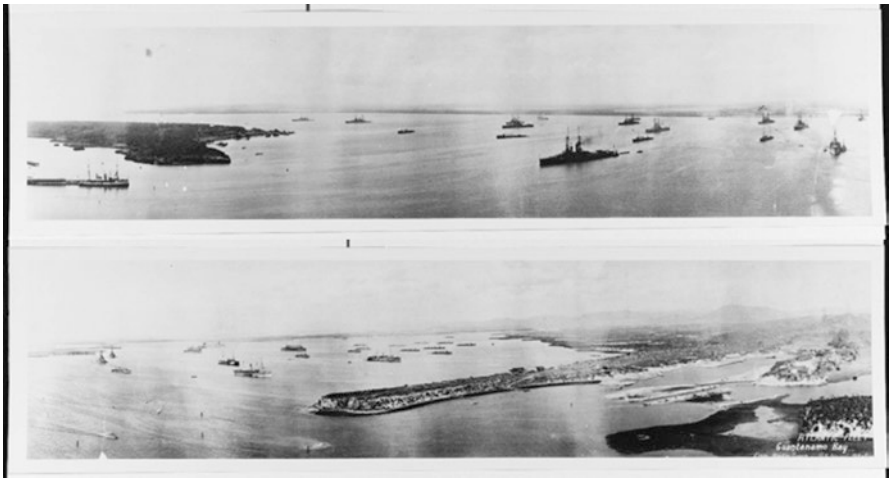

Fig. 11.2 U.S. fleet in Guantánamo Bay, 1917 (Naval Historical Foundation)

States held firm to the exact words as passed by the Senate; the amendment was later passed as written.) Two years after the convention, a U.S.-Cuba survey team set the boundaries, and the U.S. Navy took control of Guantánamo Bay for a coaling and naval station, "and for no other purpose," according to the amendment. The rent was $2000 a year, to be paid in gold, and there was no cutoff date. A Cuban diplomat wrote about the U.S. fleet's occupation of the bay: "Now that they have seen Guantanamo, they will never renounce their control over it."[1]

Why Guantánamo, as opposed to one of the many bays and harbors around Cuba? The capacious bay opened onto one of the busiest sea lanes in the Western Hemisphere: the Windward Passage connects the Eastern Seaboard, Gulf of Mexico, and Central and South America. And the lanes were about to get even busier; the Panama Canal would open in 1914. It was also fairly uninhabited: the parched terrain had attracted few settlers since Christopher Columbus sailed into the bay in 1494, naming it Puerto Grande. (The name Guantánamo comes from the Taíno who occupied the region, and now refers to the base, city, and province.) In subsequent years, the remote location became a haven for pirates and runaway slaves. Soon after the U.S. Atlantic Fleet moved in, it began conducting gunnery and war-simulation exercises in the harbor (Fig. 11.2).

In 1934, U.S. president Franklin D. Roosevelt initiated his Good Neighbor Policy toward Latin America, which included renouncing the unilateral right to intervene in the internal affairs of other countries and abrogating the Platt Amendment in

[1] For more information, see Paul Kramer's article "A useful corner of the world: Guantánamo," *The New Yorker*, July 30, 2013; the Guantánamo Public Memory Project (http://gitmomemory.org/), and Stephen Irving Max Schwab's *Guantánamo, USA: The Untold History of America's Cuba Outpost* (University Press of Kansas, 2009).

Cuba. Although many Cubans and an American commission of foreign-policy experts called for a complete withdrawal of U.S. naval forces from Gitmo, the Roosevelt administration resisted. The Panama Canal and Caribbean were considered pivotal to the U.S. fleet in the buildup to World War II amidst growing concerns of a fascist invasion of the Western Hemisphere. The new treaty, signed by Cuba, allowed the U.S. to continue using Gitmo as a naval station, with Washington maintaining jurisdiction over the area. During the war, the base became a hub in the U.S. Caribbean convoy system; it was the second busiest port in the Western Hemisphere after New York—with more 17,768 ships in convoy during 1943 and 1944—and one of the safest, with extensive air patrols (Schwab 2009).

In the postwar years, the base was well funded, housing bowling alleys, ice-cream shops, and affordable servants. Historian Paul Kramer dubbed it, "Mayberry with iguanas." Perhaps, but it was a short drive to Cuba's biggest brothel: the nearby town of Caimanera offered prostitution, alcohol, and other trade that attracted $23 million a year from the base (Rodríguez Milán 2016). The relative tranquility would last until 1959, when Fulgencio Batista, a U.S. ally considered so corrupt even American officials predicted revolution as early as 1944, was driven from the country. The base was a source of friction between the United States and the new Castro regime—Fidel called Gitmo "a dagger plunged into Cuban soil"—and American officials wondered how the U.S. would respond if Cuba attacked the base. These concerns became escalated after the U.S. supported an invasion of Cuba in 1961. The invading force was beaten in 3 days at the Bay of Pigs, strengthening Castro's leadership, his antipathy toward the United States, and his ties to the Soviet Union. During the Cuban missile crisis, the Soviets positioned three ballistic missile launchers about 15 miles from the base in 1962. Pointed at Guantánamo, each of the missiles had a warhead with the explosive capacity comparable to the bomb dropped on Hiroshima. Secret negotiations between the United States and U.S.S.R resulted in the removal of all Soviet missiles and a public promise from the United States to respect Cuba's territorial sovereignty. No more invasions.

Tensions were still high in 1964, when Castro shut off the flow of potable water to Gitmo. Soon after, President Lyndon Johnson terminated the services of 1504 Cuban workers commuting to the base, two-thirds of the work force, reducing the flow of money into Cuba by $3 million. In February 1964, the Navy contracted Westinghouse International to construct three water desalination facilities to replace the water that had been piped in from nearby Yateras. By summer, water use returned to normal. The swimming pools on the base were filled by July 30 (Schwab 2009). When Castro doubted the veracity of these claims, Vice Admiral John Bulkeley, the base's commanding officer, invited reporters to join him at the Northeast Gate, where he cut the pipe connecting Gitmo to the Cuban water system. It was bone dry. The U.S. began jetting in food, and many Cuban laborers were replaced with workers from Jamaica and the Philippines.

In 1977, top-ranking Navy commanders and State department officials proposed using Guantánamo as a political bargaining chip to help normalize U.S. relations

with Havana (Binder 1977). By the end of the Cold War, Guantánamo was on a target list of bases considered for closure (Moore 1990). But then it took on a new role. After Haitian president Jean-Bertrand Aristide was overthrown in a brutal coup d'état in 1991, hundreds of thousands of refugees fled the country. The U.S. Coast Guard rescued more 38,000 Haitians in international waters. Many were brought to Guantánamo for processing, where they were guarded by almost 2000 soldiers in prisonlike conditions and far from legal aid (Cushman Jr. 1994). The Justice Department chose the base, in part, because it contended that the rights and privileges granted by the U.S. Constitution did not apply to an overseas base (Schwab 2009). Ten thousand, seven hundred forty-seven Haitians were given refugee status, but many others were returned to Haiti. After a federal judge condemned the conditions at the camp—and the denial of Haitians' rights—the detention center was shut down. (It was reopened a year later, after lawyers for the detainees reached a deal with the Clinton administration to speed up their clients' release.) A new use for the base had been discovered: the storage of people (Kramer 2013).

On September 9, 2001, there were fewer than a thousand military personnel stationed on the base. The roads were in such bad shape that Humvee accidents were the major concern for the troops. The base was transformed after Al Qaeda's terrorist attacks on New York and the Pentagon, and the U.S.-led invasion of Afghanistan. In 2002, detainees were flown in, 20–30 at a time in shackles and black-out goggles, in an effort to eliminate any threats they might pose and to provide intelligence. As photographs with men in orange jumpsuits at Camp X-Ray—an outdoor prison that resembled a kennel complex—began to circulate, Gitmo became a lightning rod for the Taliban and terrorist organizations. Interrogation techniques were devised on the base by a resident psychologist and psychiatrist, who had been sent there to care for American troops; they included escalating tactics such as extended isolation, 20-hour interrogations, sleep deprivation, yelling, and hooding (Fink 2016). Interrogators used strobe lights, loud music, threats against family members, painful shackling, and sleep deprivation on some detainees. At least one detainee was sexually assaulted by female interrogators and beaten. Mohammed Al-Qahtani, suspected of being an intended hijacker on September 11, was menaced with military dogs, injected with intravenous fluids to make him urinate himself, and interrogated for 18–20 h at least 48 times. The Central Intelligence Agency employed the controversial use of waterboarding, a method of torture that involves water being poured into the nose and mouth of a victim lying on his back, with feet inclined above the head, on many prisoners. In 2005, the Amnesty International secretary general said, "Guantánamo has become the gulag of our times, entrenching the notion that people can be detained without any recourse to the law." Camp X-Ray was closed, but the United States held firm at Gitmo. Military contractors completed Camp Delta, a long-term facility constructed of shipping containers, at the southeastern corner of the base.

Since 2001, Guantánamo has held as many as 780 prisoners. The Military Commissions Act, signed by President George W. Bush in 2006, asserted that the

base is beyond the jurisdiction of the U.S. legal system, including the Supreme Court. The policy attracted international and domestic criticism, becoming a high-profile topic during Barack Obama's 2008 presidential campaign. On his third day in office, Obama signed an executive order aimed at closing the detention center. In November 2009, Attorney General Eric Holder announced a plan to transfer Khalid Sheikh Mohammed and four co-defendants charged with planning and organizing the September 11 attacks, to face prosecution in federal court in New York. New York politicians and the public resisted, and the Obama rescinded the plan in 2011. His later attempts to move some detainees to federal prisons in the United States were blocked by Congress, which barred the use of federal funds to hold them on U.S. soil. It was easier to send detainees to their home countries or to third countries such as Spain and Bulgaria. Forty-eight men were placed under indefinite detention: even if they couldn't be prosecuted for past crimes, they were considered a threat to the security of the United States. In a 2013 speech, Obama acknowledged the toll that the prison had taken on the United States: "Gitmo has become a symbol around the world for an America that flouts the rule of law. Our allies won't cooperate with us if they think a terrorist will end up in Gitmo… There is no justification beyond politics for Congress to prevent us from closing a facility that should never have been opened."

Guantánamo has been costly, in money and manpower, and to human rights and American values. Many of those involved with the detention center at the base believe it should be shut down. Major General Michael Lehnert arrived at the base 3 months after the 9/11 attacks, as the commander charged with constructing and operating a short-term detention facility to hold Taliban and al Qaeda detainees. (His initial assignment was for 60 days.) Since retiring, he has become one of the facility's most strident critics, calling it "a blight on our history," one of more than 60 retired generals and admirals who have called for Guantánamo to be closed (Lehnert 2015).

By May 2018, there were 40 detainees held at GTMO (New York Times 2018). Previous estimates suggested that there were 33 guards and staff per detainee, at a cost of $445 million a year (Bruck 2016; Rosenberg 2016). The word Guantánamo had become synonymous with terror and incarceration. When I entered the word into Google, the two top images were the barbed wire entrance to Camp Delta and ten men in orange jumpsuits on their knees (Fig. 11.3).

Beyond Camp Delta, the primary missions of Guantánamo Bay are to serve as a strategic logistics base for the U.S. Navy's Atlantic Fleet, support counterdrug operations in the Caribbean, and process undocumented aliens for U.S. refugee status or repatriation to their home countries (Schwab 2009). Much of this mission could be met by Naval Air Station Key West, less than 900 kilometers away. Once the prison is closed, the most compelling reason for the Pentagon to possess the base will disappear. Guantánamo's mission could be transformed from its roots, in a nineteenth-century demand to expand the presence of warships, into an international response to the degradation of the oceans and the environment.

Fig. 11.3 Top two images for a Google search of the word "Guantanamo" in October 2016 (https://en.wikipedia.org/wiki/Guantanamo_Bay_detention_camp)

11.3 Natural Assessment

The Department of Defense is one of the largest land stewards in the United States—managing more than 10 million hectares, with more endangered species per hectare than any federal agency—and one of the biggest landowners worldwide (Cohn 1996). In managing Gitmo, the Defense Department must follow regulatory laws such as the Endangered Species Act, but protecting natural environments is also an important part of the military's mission, in that they provide important, realistic training grounds (Snider 2011).

What are the collateral values that could be protected and restored in transforming the base into a peace park and research facility? Because of its isolation from the rest of Cuba, the naval base at Guantánamo Bay supports a variety of threatened and endangered species, including reptiles, mammals, corals, and other marine life (Fig. 11.1). A rapid ecological assessment of the station conducted by ProAmbiente and The Nature Conservancy in the 1990s has helped inform the natural history of the area and my

understanding of the base (Sedaghatkish and Roca 1999). The bay, which covers an area of about 36 km^2, divides the base into two parts. The eastern windward side is rugged with steep-sided hills and low coral plateaus. The leeward side is dominated by a flat floodplain, with extensive mud and salt flats surrounding the Guantánamo River. The shallow and deep oceanic waters to south of the base are also restricted, extending about two nautical miles from the shoreline. Much of the land and waters on the base are unoccupied, providing habitat for many native marine and terrestrial species.

11.3.1 Plants and Habitats

The U.S. Navy is the steward of an important array of natural communities on the base, including rare and endemic species (Table 11.1). The rapid ecological assessment found relatively pristine areas of several plant communities, including thorn scrub, coastal cactus scrub, and palm (*Coccothrinax*) forest (Sedaghatkish and Roca 1999). These Caribbean dry tropical forests are among the most endangered ecosystems on Earth, and they are relatively rare in Cuba, too. Of the 193 plant species that were identified at Gitmo, 5 are endemic to Guantánamo and the dry forest around the station, 48 are endemic to Cuba, and 19 are endemic to the Caribbean islands (Sedaghatkish and Roca 1999). Of particular interest are several cactus species that are endemic to the region, including *Dendrocereus nudifloris* and *Pereskia zinniiflora*. Coastal limestone terraces are typically sparsely vegetated, dominated by sand-fly bush (*Rachicallis americana*) and *Caribea littoralis*, a rare plant endemic to a few localities of southeastern Cuba.

The station also hosts important Caribbean coastal habitats, such as coral reefs, mangroves, sandy beaches, and seagrass beds. Coral reefs, seagrass beds, and mangroves are among the most important habitats for marine life at Gitmo, with coral reefs covering about 873 hectares, seagrass beds 434 hectares, and mangroves 557 hectares (Department of the Navy 2006). The rapid assessment of the reefs conducted in 1996 reported that coral cover was well above values reported for other Caribbean reefs, even though herbivores were in low abundance; *Acropora cervicornus*, the staghorn coral, was common and disease rare (Chiappone et al. 2001). In addition to these well-preserved areas, many other natural communities have been damaged by the construction of roads and facilities.

11.3.2 Reptiles

Guantánamo harbors a high number of amphibians and reptiles, many of which play important ecological roles on the base. More than 31 species have been recorded at Gitmo, a fifth of the diversity in Cuba (Sedaghatkish and Roca 1999). In this section, I focus on the base's reptiles, which have been more extensively studied than the amphibians.

Table 11.1 Threatened, endangered, and rare endemic species of Guantánamo Bay Naval Base

Species	Status
Caribea littoralis	Rare plant, endemic to southeastern Cuba
Dendrocereus nudiflorus	Endemic Cuban cactus found in five identified sites; endangered, IUCN Red List
Pereskia zinniiflora	Endemic Cuban cactus found in four identified sites; vulnerable, IUCN Red List
Cuban ground iguana (*Cyclura nubila nubila*)	Threatened, U.S. Endangered Species Act; vulnerable, IUCN Red List
Cuban boa (*Epicrates angulifer*)	Near threatened, IUCN Red List
Green turtle (*Chelonia mydas*)	Threatened, U.S. Endangered Species Act; endangered, IUCN Red List
Hawksbill turtle (*Eretmochelys imbricata*)	Endangered, U.S. Endangered Species Act; critically endangered, IUCN Red List
Loggerhead turtle (*Caretta caretta*)	Threatened, U.S. Endangered Species Act; Northwest Atlantic subpopulation considered least concern, IUCN Red List
Cuban gnatcatcher (*Polioptila lembeyei*)	Endemic, decreasing population size
Cuban tody (*Todus multicolor*)	Endemic, decreasing population size
Plain pigeon (*Columba inornata*)	Near threatened, IUCN Red List
White-crowned pigeon (*Patagioenas leucocephala*)	Near threatened, IUCN Red List
West Indian manatee (*Trichechus manatus*)	Endangered, U.S. Endangered Species Act and IUCN Red List
Queen conch (*Strombus gigas*)	CITES Appendix II (not threatened with extinction, but requiring trade control; harvest is illegal in Florida)
Pillar coral (*Dendrogyra cylindrus*)	Threatened, U.S. Endangered Species Act; vulnerable, IUCN Red List
Elkhorn coral (*Acropora palmata*)	Threatened, U.S. Endangered Species Act; critically endangered, IUCN Red List
Staghorn coral (*Acropora cervicornis*)	Threatened, U.S. Endangered Species Act; critically endangered, IUCN Red List
Rough cactus coral (*Mycetophyllia ferox*)	Threatened, U.S. Endangered Species Act; vulnerable, IUCN Red List

The Cuban iguana (*Cyclura nubila*) is common at Gitmo, where it is protected by the Endangered Species Act (Fig. 11.4). There are approximately 2000–3000 iguanas on the base, which could represent more than 5% of the total population in the country. Mainland iguanas outside of the base are declining at more than 1% per year. The most important habitat for the iguanas on the base is coastal limestone terrace, where they may be found at densities of more than 5 iguanas per hectare (Alberts et al. 2001). The density of iguanas along the coast of Gitmo is lower than in other undisturbed sites in Cuba, perhaps because of the many feral cats on the base, which are known to prey on juvenile iguanas (Gerber and Iverson 2000).

Fig. 11.4 The Cuban ground iguana is one of several endangered species at Gitmo. More than 5% of the known population is found on the base. (Drawing by Guantánamo courtroom sketch artist Janet Hamlin, commissioned by artist David Birkin for his project *Cyclura nubila* 2014)

In 2003, attorney Tom Wilner attempted to convince the U.S. Supreme Court to take the case of 12 Kuwaiti detainees being held in isolation at Guantánamo without access to a lawyer. He noted that when a Cuban iguana crosses the perimeter fence onto the base it becomes subject to U.S. law, and military personnel face fines of up to $10,000 for harming the animals. If the courts extended jurisdiction to include the iguanas while denying the detainees due process, Wilner argued, they would be providing more safeguards for the reptiles than for humans (Honigsberg 2009). The Supreme Court agreed to hear the case and later ruled in favor of the detainees. Even though Cuba held sovereignty over the land, U.S. jurisdiction over the base guaranteed the foreign nationals the same rights as if they were within the nation's borders.

The Cuban boa (*Epicrates angulifer*) is listed as near threatened by the IUCN. Widely persecuted in Cuba, especially near agricultural areas, it is considered a threat to domestic poultry and often killed on sight (Day and Tolson 1996; Matamoros et al. 1997). The base acts as a refuge for the species, as it is not hunted or persecuted at Gitmo. Cuban boas are active in spring and summer; they play an important role in regulating mammal populations, particularly hutias and bats (Alberts et al. 2001). Free from persecution, snakes grow larger on the base (up to 5 meters) and have bigger clutch sizes than in the rest of the country (Snider 2011).

The clearing of land in 1995 for Haitian and Cuban migrants—and the later use of the base for terrorism suspects—might have caused a decrease in the number of snakes, potentially reducing predation pressure on hutias and increasing their numbers.

The naval base is an important nesting area for the endangered green turtle (*Chelonia mydas*) and critically endangered hawksbill turtle (*Eretmochelys imbricata*). Blue, Windmill, and Pebble beaches on the windward side and AMC beach on the leeward side are among the most important nesting areas at the base. If Gitmo does becomes a peace park, these beaches—which account for 87% of the known nesting activity—should be managed to protect sea turtles (Alberts et al. 2001).

As the name of the nearby town of Caimanera suggests, crocodiles were once common in the area. The American crocodile (*Crocoldylus acutus*) was reportedly extirpated from Guantánamo Bay by the U.S. Navy by 1919 (King et al. 1982). Crocodiles were not observed during surveys conducted in the late 1990s, though naval station residents report seeing them (Sedaghatkish and Roca 1999).

11.3.3 Mammals

Mammalian diversity in Cuba is much lower than it is for other groups such as birds and fish. Of the 77 mammal species recorded on the island, about half are endemic and more than 80% have gone extinct (Woods and Eisenberg 1989). Bats have the highest diversity, with 33 extant and extinct species, followed by rodents, with 21, of which only 4 remain (Woods 1989). The largest native mammal is the Cuban hutia (*Capromys pilorides*), an endemic rodent that is uncommon in most of the country. Only found in the West Indies, hutias are threatened by overharvesting, invasive species, and habitat modification (Witmer and Lowney 2007). Thirteen hutia species have gone extinct in Cuba in recent times.

The Guantánamo Naval Base is exceptional, with widespread and abundant populations of *C. pilorides*, the only confirmed native terrestrial species found on the base. (Eight species of bats were also identified by the 1999 Rapid Ecological Assessment (Sedaghatkish and Roca 1999)). The Cuban hutia is primarily nocturnal, spending days in trees, and feeding on vegetation at night. Impacts from these high hutia densities include damage to landscaping, native vegetation, and vehicles; gnawing through cables; and the accumulation of feces in residential areas (Witmer and Lowney 2007). Since 2000, control efforts have included night spotlight shooting and occasional day shooting, though densities remain high, even in areas of intense population control. Future control efforts on the base should be mindful that the species is rare outside of Gitmo—mammologist William Kilpatrick noted that he saw more hutias during a couple of days on the base than during a month in the Caribbean—and it is likely important to the diet of Cuban boas (Alberts et al. 2001).

The area might provide a critical refuge for the West Indian manatee (*Trichechus manatus*) (Sedaghatkish and Roca 1999). Manatees were historically abundant in Cuba, especially in estuaries, river mouths, and freshwater springs, but their populations have declined after intensive hunting. They have been protected in Cuba since 1901, though poaching and fisheries entanglements continue to threaten the species. Manatees are expected to occur throughout the year at Gitmo, which provides potential foraging and resting areas, along with freshwater sources. A recent environmental DNA and tracking study of the naval station confirmed the presence of manatees in the region, with about 15–30 individuals using the bay (Hunter et al. 2018). The base maintains no-wake zones in high-use areas for manatees (Department of the Navy 2006).

11.3.4 Birds

A rapid ecological assessment of the base identified 101 species of birds, including 8 species that are endemic to Cuba. Several of these birds were considered of conservation concern by the Rapid Ecological Assessment, including the Cuban gnatcatcher (*Polioptila lembeyei*), Cuban tody (*Todus multicolor*), and plain pigeon (*Columba inornata*). All resident endemic bird species were found to be abundant on the naval station, with the exception of the Cuban vireo. The Cuban grassquit (*Tiaris canora*), which is common but declining near human settlements, has been observed in scrub, Phyllostylon-cactus forest, and mangroves on the base. Mangroves and tropical forests, globally threatened and harboring the greatest species richness of birds, are of highest conservation priority for this group at Gitmo (Sedaghatkish and Roca 1999).

11.3.5 Marine Species

Guantánamo is the largest and most important bay for marine life along the southeast coast of Cuba, which is comprised largely of rocky narrow cliffs and terraces. The mangrove shores, coral reefs, and seagrass beds on the base likely serve as critical recruitment and nursery sites for reef fauna. Although Santiago Bay, about 60 km to the west, could play a similar role, the city of Santiago has a population of more than 430,000; such a large population is likely to degrade marine resources through coastal development, overharvesting, and pollution. The marine communities in Guantánamo are better conserved because of its smaller human population and the restricted access to the base. Its relative isolation has helped preserve native ecosystems, such as coral reefs and seagrasses. Snappers and other fishes have been protected by no-take zones, such as Cuzco Beach, or areas that are off limits to divers because of military rules. Kittery Beach, for example, is closed because of its

proximity to the detention camp. Yet, as an active naval base, Guantánamo has also affected the marine environment, especially through military activities and the overharvesting of species such as queen conch (*Strombus gigas*). If the bay and surrounding uplands were protected, as a peace park and no-take area, many native species would likely flourish.

The naval station's coral reefs comprise a fringing reef system with well-developed spur-and-groove formations. According to researchers who conducted a rapid assessment in the 1990s, the predominance of corals on the base was surprising in light of a low abundance of herbivores and potential disease outbreaks on acroporid corals (Chiappone et al. 2001). A survey of the coral reef community found 72 benthic species of the phylum Cnidaria, including 44 stony coral taxa, octocorals, and gorgonians. Several species, now listed as threatened under the U.S. Endangered Species Act, were found on the base, such as the pillar coral (*Dendrogyra cylindrus*), elkhorn coral (*Acropora palmata*), staghorn coral (*Acropora cervicornus*), and rough cactus coral (*Mycetophyllia ferox*). A 2014 study of Guantánamo's reefs found heathy corals and gorgonians on the oceanic side of the base, but reefs exposed to the river plume in Guantánamo Bay, downstream from urban and agricultural areas in Cuba, were declining (Risk et al. 2014). International cooperation will be required to protect reefs exposed to upstream runoff.

Dive surveys recorded 92 fish species belonging to 29 families (Sedaghatkish and Roca 1999). This species richness is higher than for other nearby reefs and accounts for about a fourth of the total reef fish recorded in Cuba. Fishing in the waters on and near the base have been closed to Cubans since the early 1960s, but recreational harvest by U.S. military members and civilians has been occurring for decades. (A visitor map from the 1960s shows an entry point for the GTMO Reef Raiders on the windward side of the base.) One of the most important needs on the base is the enforcement of regulations protecting reef fish, queen conch, spiny lobster, and other species that are recreationally harvested (Sedaghatkish and Roca 1999).

11.3.6 Ecosystem Services

The ecosystem services provided by the Guantánamo Naval Base have yet to be quantified, but there are many benefits that likely flow from the bay, and these could be enhanced if the area is designated as a peace park and research station. The relatively intact mangroves, sea-grass beds, and coral reefs are expected to provide many of the services that they do in other areas, including the provision of finfish and shellfish, ocean recreation for military and staff on the base, flood control, and storm protection. It is essential that these interrelated ecosystems are protected and the interactions in this tropical seascape are maintained.

Among the many services provided by mangroves, the forests have extraordinarily high rates of primary productivity; they can sequester five times as much carbon as comparable land-based systems, and they are source of oceanic carbon

(Alongi 2002). Preserving and restoring them at Gitmo would help center the base in the fight to reduce climate change. Mangroves also serve as important nurseries for fish and crustaceans. In Cuba, mangroves are considered a valuable source for timber (especially buttonwood, *Conocarpus erectus*) and charcoal. They are also used as a source for honey, oysters, and shrimp (Sedaghatkish and Roca 1999).

The ecosystem services provided by seagrasses provide an estimated $1.9 trillion per year in the form of nutrient cycling globally; an order of magnitude enhancement of coral reef fish productivity; a habitat for thousands of fish, bird, and invertebrate species; and a major food source for endangered manatees and green turtles (Waycott et al. 2009). Seagrass meadows can support commercial fisheries worth as much as $3500 per hectare per year and subsistence fisheries for surrounding communities. Globally significant for the sequestration of carbon, seagrass meadows also play important roles as filters, improving water quality. Seagrasses and the organisms living in their leaves, for example, retain, filter, and actively capture suspended particles (Orth et al. 2006).

Coral reefs are essential to tropical fisheries, coastal protection, tourism, and recreation. They have high levels of biodiversity and are important for the migration of adult fish and invertebrates. These animals influence the productivity of seagrass beds, through grazing and nutrient export (Moberg and Folke 1999).

The ocean itself has been restorative for Americans and detainees. Swimming, scuba diving, and fishing are common forms of recreation for the military and civilians. One noncommissioned officer told me that the wildlife on the base helped him cope with his service. He became PADI-certified during his tour "inside the wire," and diving among the corals, octopuses, and barracuda helped spark a life-long passion for the marine environment. For the detainees, even a glimpse of the sea felt like freedom. After preparations for a coming hurricane prompted the removal of green tarps that blocked the ocean, one detainee recalled: "We all faced one direction: toward the sea… and the detainees started making art about the sea… I could see the detainees put their dreams, feelings, hopes and lives in them… the sea means freedom no one can control or own, freedom for everyone" (Adayfi 2017). After the detainees' work was exhibited, the US government declared the work US property subject to destruction.

One sustainable scenario for the future of the area would be to allow small-scale tourism in addition to research and artistic activities, with a focus on the natural and cultural history of the base. This transition would be easier for Gitmo than many other former militarized zones. Unlike the proposed Emerald Triangle Protected Forest Complex in Thailand, Laos, and Cambodia, which is riddled with landmines, the mines planted by the United States along the perimeters during the height of the Cold War have been removed. The Guantánamo Peace Park could also extend the network of protected areas in Cuba, including the Parque Nacionál de Gran Piedra and Parque Nacionál de Baconao, extensive natural areas that reach the outskirts of Santiago de Cuba. A coastal hiking trail extending from Cuba's second largest city to Guantánamo would help tie this area together.

11.3.7 Conservation Concerns

The future of Guantánamo as a thriving marine and terrestrial ecosystem depends on managing the landscape and seascape, with an awareness of past and future human activities. On land, there are several plant species, such as *Caribea littoralis* and the cactus *Pereskia zinniiflora*, that are rare and in need of conservation efforts at Gitmo. In general, the dry tropical forests and cactus scrub habitats found on the base are highly valuable and threatened throughout much of the Caribbean. They should be targeted habitats for conservation. The establishment of a no-take marine protected area in the restricted waters within and surrounding the base could serve as a refuge for reef fish and a source for nearby communities where harvest is allowed, and the area would also offer a refuge for many endangered species, such as sea turtles and manatees.

Several species on the base are reportedly under stress or overharvested. A 1996 survey found that recreational fishing is the most popular entertainment for military and civilian personnel (Bustamente et al. 2000). The spiny lobster (*Panulirus argus*), queen conch, and many reef fish populations are severely exploited and will require better management. The granadillo tree (*Brya ebenus*), which grows in cactus scrub and forest, has been overexploited for carving and craftsmanship at Gitmo and other areas of Cuba, resulting in severely reduced populations. Limits on harvesting this species has been recommended (Sedaghatkish and Roca 1999).

Invasive species are also an issue on the base. Lionfish (*Pterois* spp.) are common in Cuba and likely in Guantánamo, which despite its political isolation is not immune to marine invasions. Nonnative mammals include cats, dogs, goats, and white-tailed deer. Although there have been some efforts to remove these species, they remain on the base; feral cats are probably the biggest threat to the size and health of the iguana population (Alberts et al. 2001), and they presumably have an effect on other native species, such as Cuban boas, birds, and mammals. Such exotic species should be controlled and ideally eradicated from the area.

11.4 Future Scenarios

Guantánamo's future remains uncertain. More than 674 detainees have been released without charge, many after spending years in solitary confinement (Human Rights Watch 2016). At the time of this writing, 40 captives are in the Detention Center Zone, and visions for the base remain divided. Some in the United States think that Gitmo should remain open, as a legitimate and convenient place to keep suspected terrorists, and proceed with business as usual. In addition to incarcerating international terrorism suspects, the station supports other missions, including regional counterdrug operations, maritime migration interdiction, search and rescue, and humanitarian assistance, Other Americans – and much of the international community – strongly support closing the base and returning the land to Cuba.

The Cuban government and people appear united in the opinion that the base is a part of their national territory, held against their will. Many Cubans feel it should be returned as soon as possible, with no strings attached, an idea that is supported by the Community of Latin American States; CELAC has declared that the closing of the base should be part of the normalization process between the two nations (*Havana Times* 2015).

Transforming Gitmo into an international peace park would protect and restore the area's biodiversity, convert the active area into a research center, and provide ecosystem services to southeastern Cuba. Why would the Cuban government and its people accept anything less than an unconditional return of the land to Cuba? A jointly operated research facility and peace park would give global recognition to the country's conservation efforts. Cuba has many excellent scientists and a strong scientific tradition, but it has very little funding, especially for conservation. The nation has a relatively small research and development budget, with Cuban scientists earning about $36 per month (Stone 2015). As James Kraska, a professor at the U.S. Naval War College, and I proposed in the journal *Science*, the Guantánamo research park would provide financial support, up-to-date facilities for ecological and environmental work, and an opportunity to build capacity and train Cuban scientists and students (Roman and Kraska 2016). A poignant move would be to focus the interchange on residents from the surrounding eastern provinces. Far from Havana and the popular beaches of Varadero to the north, economic opportunities are fewer in the southeastern part of the country.

At the height of the Cold War, the U.S. placed more than 50,000 landmines along the perimeters of the base. Cuba planted cactuses, and landmines, on its side of the fence to discourage defectors. In 1996, President Bill Clinton ordered the demining of Gitmo, and landmines were removed by 1999. But the Cactus Curtain remains. The new relationship would reestablish communication between Gitmo and nearby communities—before the Cuban Revolution, thousands of local laborers earned their livelihoods on the wharfs, and in the machine shops and warehouse of the base—while avoiding the historical pitfalls of prostitution and military barriers. The Northeast Gate, long marking the division between Cuba and the U.S. compound, could provide a symbol for the transformation of the base, with Cubans returning to Guantánamo through the checkpoint after decades of exclusion (Fig. 11.5). Tearing down the 17-mile perimeter fence would be an act of ecological restoration and a symbolic gesture. The two countries could manage the area's wildlife jointly, rather than in isolation.

11.4.1 Research Center

Guantánamo could be central in expanding scientific exchange and promoting environmental cooperation between the United States and Cuba. Part of the developed leeward side of the base could become a Woods Hole of the Caribbean, housing research and educational facilities dedicated to addressing biodiversity loss, climate

Fig. 11.5 (**a**) The Northeast Gate of the Guantánamo Bay Naval Base (JTF Guantanamo file photo). (**b**) The gate could provide the first opening between Cuba and the U.S. naval base: an installation of photos of species native to the Guantánamo Bay region, with free-standing panels extending from the base checkpoint through the Cuban and U.S. borders (artwork courtesy Dave Hampton)

change, and ocean conservation. Laboratories for molecular genetics and geographic information systems could be built alongside videoconference rooms, and even art, music, and design studios, hosting scientists, scholars, and artists from Cuba, the United States, and around the world. The base could also provide facilities for captive breeding for endangered and endemic species such as Cuban crocodiles, corals, and bats.

Such a transition would be beneficial to the U.S. The military and detention facilities are economically, politically, and ecologically costly. Converting the base into a research station would extend a long tradition of U.S. naval support for scientific research and operational oceanography. The marine barracks, Joint Task Force headquarters, and other facilities could be refurbished, rather than torn down, to achieve conservation goals. The new facilities should strive to be carbon neutral, designed to reduce ecological damage to the surrounding marine and terrestrial ecosystems. Installing new renewable power systems could build on the precedent set by four 80-meter 950-kilowatt wind turbines completed in 2005, which now generate 2–3% of the base's power. (The turbines were planned before the terrorist attacks of September 11, 2001, when the base's energy demands were much lower.) The opening of the border would allow the flow of materials from the Guantánamo Province and other points in Cuba, rather than having most everything, including labor, flown in.

The research center would also be beneficial to Cuba and its neighbors. As a home for biodiversity and marine studies, Guantánamo could help stave the extinction crisis and work to protect the Caribbean from the increased degradation of coral reefs and marine fishes. The U.S. and Cuba could work together to restore native species and fight noxious invasives, such as lionfish (*Pterois* spp.), African catfish (*Clarius gariepinus*), and marabou (*Dichrostachys cinerea*). They could work with neighboring countries, such as Haiti, Jamaica, the Dominican Republic, and other Caribbean and Latin American countries, to restore their own coastal ecosystems.

11.4.2 Peace Park

During his 2016 visit to Cuba, Obama declared, "the embargo's going to end" (Liptak 2016). Later in the year, he eased travel regulations between the two countries. On August 31, Jet Blue became the first U.S. passenger airline to complete a commercial flight to Cuba in 50 years, from Fort Lauderdale to Santa Clara. There are now regular flights from New York, Miami, Houston, and other U.S. cities, although tourism remains restricted under the embargo. It is likely that resumed trade between the two countries will increase industrial agriculture and tourist development, after decades of slow growth and conservation in the archipelago.

The protection of Guantánamo as a peace park could help offset some of the ecological consequences of normalization between the United States and Cuba, offering an alternative path to rapid development. Gitmo could deindustrialize and demilitarize, joining the growing number of peace parks, such as the land along the corridor of the former Iron Curtain. The new European Green Belt could transform

the continent and help species such as brown bears, imperial eagles, and lynx recover (Terry et al. 2006; Havlick, Chap. 9, this volume). As part of their peace agreement in 1999, Israel and Jordan established the Red Sea Marine Peace Park, an area under joint management where Israeli and Jordanian scientists and students come together to learn and protect shared coral reefs. After the U.S. military decommissioned Fort Clayton in Panama, the base was transformed into Ciudad de Saber (City of Knowledge), a government-sponsored complex that has attracted international scholars and the United Nations Development Program. Such international parks and decommissioned bases are signs that humans can work together, even after conflicts, and protect other species that share our planet.

Careful planning is important. As Saleem Ali notes in this book, peace can come at a cost to conservation (see Chap. 8 in this book). When the Cordillera del Condor Corridor was demilitarized, there was increased pressure to exploit the area. Guantánamo could experience similar pressures, with its ocean location and coastal infrastructure. As with other decommissioned military areas, the transformation of Gitmo should occur with the input and cooperation of local stakeholders—in this case, the people of the surrounding Guantánamo Province. Essential to this vision is understanding the spillover effect of ecosystem services beyond the base's borders. Research on the economic and ecological value of preserving the mangroves, sea grasses, and reefs for the nearby communities of Caimanera and Boquerón, and for the base, will help make the case for protecting the base and its surrounding waters. On a practical level, there is a need for updated botanical surveys, vegetation, and marine maps, most of which were completed before 9/11.

The restricted waters of the base should be converted to a no-take marine-protected area, and research conducted at Guantánamo could examine the impact of this change on endangered species and fisheries in Cuba. Protecting the coral reefs, sea turtle nesting beaches, and habitat for vulnerable birds and reptiles will ensure the future of these species. A high priority should be reintroducing critically endangered species. One potential candidate is the Cuban crocodile (*Crocodylus rhombifer*). Given that the American crocodile was extirpated from Guantánamo Bay about a century ago, the risk of hybridization between the two species would be lower here than in areas such as the Zapata Swamp (Milián-García et al. 2015). Providing an area for in situ and ex situ conservation around the bay could provide a much-needed refuge for this species, which is currently limited to just two locations, though whether there is enough habitat to support this species would have to be examined. Hutias, an important food source, are common; freshwater is not.

Isolation has played an important role in protecting some of Guantánamo's ecosystems, but there is no doubt that the military has had a large impact on the bay and its surrounding uplands. Ecological restoration will be an essential part of the future of the base, and managers could benefit from the experience of other military areas. As Machado and Hupy note (see Chap. 5 in this book), the battlefield of Verdun was described as a moonscape after World War I. The French forest ministry undertook a massive effort to restore the area, and it is now home to a wide diversity of wildlife and plants, with former shell holes and trenches providing unique ecological niches.

As in many U.S. military bases around the world, the local commanders compensate for isolation with a pumped-up Americanism. The base has two outdoor movie theaters, six dozen fast-food restaurants, and a miniature and nine-hole golf course (Toobin 2008). As the United States comes under increased pressure from Cuba and its allies in the Americas to close the base, it is essential to consider how these facilities can be repurposed to meet Cuban, Caribbean, and pan-American needs. In repurposing the base, it is important that we don't forget its past. The Guantánamo Public Memory Project, now housed at Columbia University and with extensive information available on line (www.gitmomemory.org), would be a logical partner in creating a site that recognizes, commemorates, and transcends the base's history.

Pope Francis and the Vatican played an essential role in establishing diplomatic relations between Cuba and the United States in 2014. They could help advance a peaceful future for Guantánamo. In the first papal encyclical on the environment, Pope Francis called for an ecological conversion and the widespread protection of biodiversity, remarking on the decline of coral reefs, "Who turned the wonderworld of the seas into underwater cemeteries bereft of color and life?" (Pope Francis 2015). We did, of course, through overfishing, deforestation, pollution, and burning fossil fuels. And we can turn it around.

11.5 Proposal Response

There have been several proposals for the postmilitary future of Guantánamo. These include converting the base into a hub for humanitarian relief work (Stavridis 2015) or a biomedical center for diseases associated with poverty in the Americas (Hotez 2008). Among the responses to our proposal for a peace park and research center, Admiral James Stavridis, the former head of the United States Southern Command, which oversees Guantánamo, called the proposal plausible. I considered this a rave. "Once something is plausible in a semi-democratic society," writer Adam Gopnik (2015) has noted, "it has a natural momentum toward becoming real." Senator Brian Schatz of Hawaii noted, "Guantánamo doesn't make us safer and costs millions of dollars and ought to be eventually closed." In contrast, Senator James Inhofe of Oklahoma responded, "That's the dumbest thing I ever heard. Why would we talk about a marine lab when we're trying to save American lives?" (Chemnick 2016).

Perhaps unsurprisingly, conservationists and scientists in the U.S. and Cuba have expressed support for the proposal, in the media and through personal communications. Author Elizabeth Kolbert (2016) remarked in *The New Yorker*: "The beauty of the latest proposal… is that it turns Guantánamo's historical liability—its isolation—into an asset… the notion of transforming the site of one of the world's most notorious prisons into a 'peace park' has an undeniable charm. As no less of an expert on reconciliation than Nelson Mandela once put it, the concept of the peace park 'can be embraced by all.'" Part of Robben Island, where Mandela and other ANC supporters were imprisoned, is now a protected penguin colony. Franklin

D. Roosevelt, who visited Gitmo twice as president, might have had similar thoughts, when he wrote to his Secretary of State, Cordell Hull: "Conservation is a basis for permanent peace." It was an idea presented to him by his friend Gifford Pinchot, whose work established the conservation and managed use of America's national forests (Pinchot 1947).

What is the likelihood that this proposal will become a reality? When I first presented it in 2015, the Obama administration had about 18 months to go, and the president had made it clear that he wanted the prison closed. But Obama's attempts had stalled, and the detainees remained. At the same time, Cuba insisted that the land should be returned to them with no strings attached, revealing little about its postbase aspirations. In discussions with Cubans during my visit to the country, there was strong support for the idea. Essential in the proposal was that the peace park was the first step in returning the land to Cuba. José Luis Perelló Cabrera, a professor in the faculty of tourism at the University of Havana wrote in an email that he considered the proposal "un magnífico proyecto," and was hopeful that there would be related opportunities for sustainable tourism. A Cuban official wishing to remain anonymous noted that it was a feasible idea, adding that "there are political complexities that cannot be ignored, for Cuba [the] return of this territory is a matter of sovereignty… and is not expected to accept a mediated way." The official thought that a two-step process, including an unconditional termination of the lease by the United States followed by the establishment of an area of shared administration, with Cuba retaining the land rights, could work.

Since that time, the Trump administration has shown little enthusiasm for improving relations with Cuba. And although the number of detainees has declined under Trump, despite his campaign promises to fill it back up, there are no public discussions of closing the base. I thought of the Cuban metaphor for long-term vision, *luces largas*, or high beams. The transformation of Gitmo will not happen overnight.

Kramer (2013) has noted that Gitmo has been cast, "as station and school, leverage and message, weapon and prison… essential to the United States' position in the world." The Guantánamo Peace Park and Research Center would add a new role: it would help salve memories of Cold War conflict, Cuban refugees, and 9/11 detainees. The park would serve as an exemplar, encouraging people across the world to convert military bases and conflict zones into areas of creativity and cooperation, while protecting the planet's biodiversity. The next generation should know Guantánamo as an inspiration, not a stain.

Acknowledgements I thank Todd R. Lookingbill and Peter D. Smallwood for encouraging me to submit this chapter. Many of the ideas were developed with James Kraska for our 2016 article, "Reboot Gitmo for U.S. Cuba research diplomacy," in *Science*. Influential early reviewers include Dan Whittle, Paul Kramer, and my steadfast editor, Debora Greger. Dave Hampton created images and helped envision the transition from base to park. David Birkin, Gillian Galford, Gillian Pirolli, and Sam Grubinger helped with figures, and David Evans provided background information. The Gund Institute for Environment, Paul Lattanzio, and Allison and Winthrop Pescosolido provided financial support.

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