

Passage Key

And the Wildlife Refuges of Tampa Bay

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Passage Key is a small island at the entrance of Tampa Bay, Florida. Historically, this island had little appeal for human settlement. In fact, until the Seminole Indians were forcibly removed, in the late 1850s, South Florida had little appeal to the white settlers. But Passage Key was particularly undesirable. The sandy soil was too poor for farming, and as a result of the island being so low, the waves of heavy storms would sweep over the entire island. It seems that Passage Key was only fit for the birds.

When the Spaniard, Francisco Maria Celi, first surveyed Passage Key in April 1757, the island had several hundred acres. However numerous hurricanes, in addition to the daily pounding of the surf, has eroded the island away until today the island is only a submerged sandbar. Yet these same destructive waves can also bring in more sand and so Passage Key might again reimmerge. Like the mud flats of a river, this island is constantly growing and shrinking, never happy with its shape.

Passage Key saw it's name changed many times. Ceil's charts of 1757 labeled this island as "San Francisco y Leon". A later Spanish chart calls the island "C del pasage". In 1769, the English surveyor Bernard Romans labeled the island as "Pollux Key", referring to an English privateer of Captain Bradock that once patrolled the eastern Gulf waters. In 1849, when, the US Army was studying the possibility of fortifying Tampa Bay, Passage Key was called Barnaby Island. Then, in 1855, when the first United States drawn navigation chart was published, this island was named Passage Key. It is this name that has stuck, well almost, a newspaper story in 1916 gave the island an alternate name of Bird Key. It must be remembered that South Florida was still a wilderness frontier. The first permanent settlement of Tampa (Fort Brooke) was not established until 1824. By 1840, the whole of Tampa Bay area (Hillsboro County) had but 452 "civilized" residents. With such a newly established local population, there was no one to enforce any geographic names.

FISH RANCHOS ON PASSAGE KEY

Some of the earliest white settlements in the Tampa Bay area were the small Spanish fishing camps, known locally as "ranchos". In those early years, the bays and inlets were filled with fish. Fishing was so good that the old timers claimed that the fish were so eager to be caught that they would jump into the boats. Many of these fish were sold to the markets in Havana, Cuba. In the early 1830's, there were several ranchos in the Bay area owned by Captain William Bunce, including one on Passage Key.

In those early years, the Florida peninsula was occupied by approximately 5,000 Indians of the Seminole tribes. The Hispanic fishermen generally got along with the Seminoles, and often traded goods with them. However, many other white settlers wanted the Seminoles removed. Not only did they fear hostile raids, but conditions within the Seminole settlements

made them a magnet for runaway slaves. The Negroes were treated better by the Seminole (who were also a slave holding culture). Yet, the Seminole people did not keep good written records, so it was very difficult for a white slave owner to prove ownership of a particular Negro.

The Payne's Landing treaty, of May 9, 1832, would have relocated the Seminoles to the Creek Indian portion of the Oklahoma Indian Territory. However, the Seminoles claimed that they, as a nation, never agreed to this treaty. Many US Army officers also agreed that the treaty was a fraud, yet the Army was ordered to enforce the treaty. Then on December 28th, 1835, a band of Indians ambushed an army battalion lead by Major Frances L. Dade, killing all but three of the 110 officers and men. This "Dade Massacre" (near the present town of Bushnell, Florida) resulted in the Second Seminole War (1835-42).

With the onset of the Second Seminole War, the Indians started raiding the ranchos. Many fishermen from southwest Florida fled to Bunce's rancho on Passage Key. The *USS Concord* arrived in Tampa Bay, in April, 1836, to provide some security. More protection was provided on August 11th by the sloop *USS Grampus* which took station off the southeastern side of Passage Key. In response to rumors of an impending raid, the *Grampus* sent a marine detachment ashore each night to increase protection. On August 24th, two Indians were taken prisoners. Another Indian was captured on September 1st. The US Revenue Cutter *Jefferson*, came briefly, on August 30th and took the prisoners to Fort Brooke. These ships also send parties ashore for fresh water, which implies that there was a fresh water spring on Passage Key. On September 11th, Bunce's fishing party moved to Mullet Key, four miles to the north. They were joined by the *Grampus* on the 20th.¹

MID CENTURY

During the Revolutionary War (1775-83), the English colony of Florida was used as a staging point for raids into the southern United States. The English also launched raids, from Jamaica, during the War of 1812, against Mobile and New Orleans. To limit similar troubles, in future wars, the United States purchased Florida from Spain (which reclaimed the colony in 1783) in 1821. However, until the United States could fortify the Florida coast, there was nothing to prevent a European power from capturing a port city again -- where they could stage new raids on the United States.

Money was not available for a military survey of the lower Florida coast until after the Mexican War (1846-48). In early 1849, the Army Corp of Engineers sent Col. Rene' E. DeRussy, and three other officers (including Brevet Lt. Col. Robert E. Lee) to survey the entire coast of Florida to determine possible future fortification needs. They decided that the defensive needs of Tampa could be best handled from Egmont and Mullet Keys, and thus they recommended that these islands should be reserved for future fortification needs. Passage Key, while not included in their suggestions, was also saved by the War Department, thus preventing any developing of the island.

The Engineer's report made the following comments about Passage Key (then called Barnaby island). "The storm of October 1848, washed away a portion of Barnaby island, and

¹ *Passage Key in 1800s* by Dewey Dry Jr., Bradenton Herald Sunday Magazine, January 17, 1971

diminished the depth of the channel, between that island and Long Island [Anna Maria Island]The islands covering the mouth of Tampa are low and sandy, and bear a [illegible] growth of Spanish Bayonet, Palmetto.”²

In 1855, all of Hillsboro County south of Tampa Bay, split off to form Manatee County. Originally, Manatee County included Passage Key, Egmont Key and Mullet Key, but by 1860, the county line was move south so as to just include Passage Key.

Of course the Manatee River and county were named after the large marine mammal of the same name. It is interesting to note that by the early 1900s the manatees had become so scarce that sightings were reported in the local newspaper.

Throughout the American Civil War (1861-65), the Union Navy occupied the lighthouse on Egmont Key. They also bombarded Tampa in 1862, and raided that town in 1864. There were several other minor raids along the coast, and a hand full of blockade runners were captured, but they made no other effort to occupation of this part of Florida. The only mention of Passage Key during the war was a Union Navy proposal, in March 1862, to block the Passage Key inlet, by sinking two old schooners.

Passage Key disappeared from the historical records until 1905.

THE NATION’S BIRD REUGE SYSTEM

The nineteenth century was a time of massive industrial and agricultural expansion in the United States. Almost everyone believed that America’s resources were limitless. The resulting wasteful habits were appalling.

Birds of every kind were being slaughtered for a variety of reasons. Some birds were killed for food. Fashionable ladies hats were adorned with colorful feathers. Some farmers, who were angry about the crows eating their grain crops, were indiscriminately poisoning the birds. A similar naive crusade was being fought by some fishermen against the seabirds. Some sportsmen were stuffing birds and animals as trophies, while other hunters were slaughtering animals (by the hundreds) only to leave them rotting on the fields. Still other hobbyist were collecting brightly colored bird eggs.

Pelicans were also being hunted for more serious business needs. Every form of business required quill pens, by the millions, and pelican feathers worked very well. Even though fountain pens and ball point pens were invented in the 1880s, efficient pen designs were not available until the 1940s. Without a practical manufactured writing instrument, quill pens were still being used well into the 20th century.

By the 1850s some thoughtful people were calling for some form of government regulation to protect the birds from this needless annihilation. At first the conservationist were ignored, but by the end of the century men like Henry David Thoreau and John Muir were being heard.

The first conservationist efforts were assigned to the U. S. Department of Agriculture. This was actually a logical move. Some animals, like mice, can be very destructive to crops, while other animals like skunks and foxes are nature's way of controlling the mice. Many birds could also be useful to both the forest and the farmer by feeding on destructive insects. In July 1866, the U. S. Department of Agriculture organized the *Division of Ornithology and Mammalogy* [study of birds and mammals] to study the economic relationships of wildlife on farming. This agency was renamed the Bureau of Biological Survey on July 1, 1896.³

The Department of Agriculture started to actually set aside land for wildlife with the National Forest Reserve Act of 1891. They acquired thirty-four thousand acres within the first decade, and expanded to one hundred and seventy two million acres under President Theodore Roosevelt. Yet the National Forest system offered very limited protection for wildlife. In March 1903 Roosevelt took the revolutionary step of setting aside Pelican Island (north of Vero Beach, Florida) as the nation's first bird reservation (under the Bureau of Biological Survey). Soon many other places were added to the bird refuge system.

The establishment of bird reservations was only one step. On March 4, 1913, Congress authorized the Bureau to establish strict hunting regulations -- a daily closed season extended from sunset to sunrise for all migratory birds; an annual closed season of 8 1/2 or 9 months for game birds; a 5-year closed season for certain game birds in danger of extermination;" and " a perpetual closed season for insectivorous birds" These regulations were approved by the President on October 1st. Generally these regulations were welcomed across the nation. Yet little money was available for game wardens, so the bureau often had to rely on local governments to enforce the new hunting laws.

PASSAGE KEY AS A BIRD SANCTUARY

In 1905, Passage Key contained about 36 acres and the center portion of the island was covered with mangrove trees. Because of the island's great diversity of birds, it was a favorite spot for birdwatchers. Local members of the National Association of Audubon Societies, led by R. D. Hoyt, of Clearwater, Florida, saw the value of preserving Passage Key as a bird reservation.⁴ Unfortunately, no details of this movement have been found. President Theodore Roosevelt signed an executive order, on October 10, 1905, that established Passage Key as the nation's sixth bird reservation.

Executive Order

It is hereby ordered that Passage Key, an island near the mouth of Tampa Bay, Florida, as shown on the General Land Office map of the State of Florida of date 1893, and situated in section 6, township 34 south, range 16 east, as the same appears upon the official plat of survey of said township

³ The Bureau of Biological Survey was actually known as the Div. Of Biological Survey until July 1, 1905. Their duties were officially described as: *studies the geographic distribution of animals and plants, and maps the natural life zones of the county; it also investigates the economic relations of birds and mammals, and recommends measures for the preservation of beneficial and the destruction of injurious species. It is charged with carrying into effect the Federal law for the importation and protection of birds.*

⁴ *correspondence, Hoyt to Pillsbury, June 10, 1911, National Archives, RG 22, Entry 162, Box 121, File: Passage Key 1907-15*

approved March 17, 1877, be, and it is hereby reserved and set apart for the use of the Department of Agriculture as a preserve and breeding ground for native birds. This reservation to be known as the Passage Key Reservation.

THEODORE ROOSEVELT

The first game warden was Asa Nettleton Pillsbury, Jr. (- 1967). His family migrated from Chicago, in c. 1880, to Palma Sola Bay [in western Manatee County], where they homesteaded. He was a boat builder, a conservationist, and member of the Audubon Society. He was often referred to as “Captain” Pillsbury, but this title appears to have been a courtesy title given to anyone with a boat, and not an official military rank. He married Cora P. Earl (- 1945) in 1905. Because they both loved the birds, they built a small house on Passage Key.⁵

Passage Key had a great multiplicity of birds that changed greatly from month to month. The Black Skimmers and the Laughing Gulls were of particular interest because this was the only place they were known to be breeding in Florida then. The island’s status as a reservation had an immediate effect. By June 1, 1906, the warden could report “ There are more birds here than have been known on this Key in ten years.” By 1910, a total of 102 species had been sighted on Passage Key.

BIRD SIGHTING ON PASSAGE KEY			
1906-07			
	Jan 1906	May 1906	Feb 1907
Black-Bellied Plovers	-	200	-
Black Skimmers	-	300	-
Black Terns	-	2000	-
Blue-winged Teals	25	-	40
Boat tailed Grackles	-	30	30
Brown Pelicans	800	100	500
Cabot Terns	200	100	2
Common Terns	200	1500	-
Florida Cormorants	3000	12	3000
Forster’s Terns	200	1500	-
Great Blue Herons	2	112	26
Ground doves	20	14	36
Herring Gulls	600	-	900
Laughing Gulls	150	600	500
Leaser scaup duck	20	6	50
Little Blue Herons	1	60	-
Louisiana Herons	-	5000	6
Loons	25	-	40
Man O’War Birds	-	30	-
Myrtle Warblers	25	-	-
Red-breasted Mergansers	5000	-	8
Red-winged blackbird	15	18	40

⁵ Warner, Joe. *Singing River, A History of the People, Places and Events Along the Manatee River.* Bradenton, FL, Printing Professionals & Publishing, 1968, Pp. 9-10.

Royal Terns	500	3000	400
Savanna Sparrows	500	-	100
Semi-palmated sandpiper	15	-	30
Tree Swallows	1000	-	10
Yellow Crowned Night Herons	-	<u>30</u>	<u>-</u>
Total species	46	36	29
Total birds sighted	12394	14595	5944

To save space, those birds with less than 25 on either month are not listed, however, all birds are recorded in the monthly tallies. See reports of January 31, 1906, May 31, 1906, and March 7, 1907, National Archives, RG 22, Entry 162, Box 121, File: Passage Key 1907-15.

Asa Pillsbury was not listed in the *Official Register of the United States*, for 1907, which suggest that he did not receive a government salary for several years. A letter from his wife, Cora, in June 1909, stated that "... we could not afford to refuse any work that might be given Asa in the Light House Service. ... If Asa has a salary for work outside the boat shop we can do ever so much more for Passage ... reservations." She went on to say "As little as we do for the birds, there is no one we know who would do as much, and I would want no salary." (It is possible that he was running some kind of boat service, perhaps tending buoys, but this is only speculation by the author. This guess is based on the fact that after moving to Mullet Key, Asa was running boats for the Quarantine Station.) However, the *Official Register*, for 1909 and 1911, list Cora as receiving fifteen dollars a month for reservation warden, and yet fails to list Asa as a government employee. After a few years Asa returned to duties as reservation warden, is listed as receiving twenty five dollars a month in the *Official Register*, for 1915 and 1917. Unfortunately, the *Official Register*, for later years, does not list employees with the lower paying jobs.⁶

TRESSPASSING

The handling of trespassers was a delicate problem. One source of trespassers was the bird watchers. Many of these people (who were a major source of financial contributions) traveled hundreds of miles just to see the birds. Yet their very presence spooked the birds. The Assistant Chief of Biological Survey, Theodore S. Palmer wrote: "It is not well to have the public feel that the reservation is a forbidden spot which they can never visit. On the contrary, if we are to have the support of the public sentiment we must gain the interest of the people and encourage them to visit the reservation under proper restrictions, and at times when their presence will not disturb the breeding birds."⁷

Palmer wrote another letter to Pillsbury about another bird watcher named J. E. Tyler who admitted to making two unauthorized visits to Passage Key, in 1912. Tyler "seemed very much surprised to learn that there was any thought that his actions would warrant arrest. Palmer explained to him about his serious error and the need to first contact the warden first. Early refuge regulations did not even allow cameras, and so Palmer concluded with "In view of the fact that Mr. Tyler did not secure any photographs at Passage or Bird Keys and therefore failed

⁶ Ibid. and corresp. C. P. Pillsbury to Dutcher, Jun 8, 1909, National Archives, RG 22, Entry 162, Box 121, File: Passage Key 1907-15.

⁷ corresp. Jun 20, 1910, National Archives, RG 22, Entry 162, Box 121, File: Passage Key 1907-15.

in one of the main objects of his trip to Florida, no further action for breach of regulations seems to be necessary and in the future I think that he will be more careful to communicate with the warden before attempting to land on any reservation".⁸

A less friendly source of trespassers were the commercial fishermen. For at least a hundred years, the fishermen had been fishing the waters around Passage Key, and they were unwilling to give up this ideal fishing ground. In spite of repeated warnings, the fishermen (who were described as "mean characters") would not be deterred. One of these fishermen was Ambrose Jones, the fish warden from Cortez [fishing village in Manatee County]. Pillsbury noted that "The fishermen claims that there is no law to keep them off these Passage Key shoals, nor to prohibit them from running close to the shore as the boats can float."⁹ Another problem with the fishermen hauling their nets was that their trash would wash on the beach "attracting coons, buzzards, and ants into the bird's nesting sites."¹⁰

Some of these fishermen were thought to be collecting the bird eggs. One incident of egg pouching occurred on June 24, 1905, when all of the black skimmer's eggs were taken.¹¹ The fishing sloop *George E. Roberts*, of St. Petersburg, was suspected. The date given of the alleged theft is interesting because the reservation had not been officially established yet. This implies that the Audubon Society was watching over this island, even while it was officially in the hands of the War Department.

Again on June 14, 1910, an estimated 500 skimmer eggs were stolen. However, Palmer, cautioned Pillsbury "not to take extreme measures ... without giving the trespassers due warning. We are not merely trying to raise birds on these reservations but to create sentiment in favor of them, and to present the later objective is almost as important as the former. Experience in South Florida have shown that trespassers will resort to any means to attain their objects, and extreme measures not only give them provocation for an attack, but create bitter feelings among a number of those who are not in sympathy with the objects of the reservation."¹²

Pillsbury, in realizing his delicate situation, wrote "we have never failed in the caution not to antagonize the fishermen, realizing the harm that could be done by any one resentful: to burn off Passage Key would be easy and all young birds quickly destroyed."¹³

In the autumn of 1913, a small Berkshire pig was caught on the island. Apparently this pig fell overboard while being transported on a passing boat. The pig was first transported to Fort De Soto, and then to Palma Sola. By July of the following year, the pig was still unclaimed,

⁸ corresp. Aug 1, 1912, National Archives, RG 22, Entry 162, Box 121, File: Passage Key 1907-15.

⁹ Report June 1, 1906, National Archives, RG 22, Entry 162, Box 121, File: Passage Key 1907-15.

¹⁰ corresp. Pillsbury to Bancroft, July 31, 1914, National Archives, RG 22, Entry 162, Box 121, File: Passage Key 1907-15.

¹¹ *Manatee River Journal*, Braidentown, Oct 20, 1905.

¹² corresp. Palmer to Pillsbury, June 20, 1910, National Archives, RG 22, Entry 162, Box 121, File: Passage Key 1907-15.

¹³ corresp. Pillsbury to Bancroft, Jul 13, 1914, National Archives, RG 22, Entry 162, Box 121, File: Passage Key 1907-15.

even after numerous attempts to find the owner.¹⁴

FORTS AND QUARANTINE STATIONS

The 1890s and early 1900s saw tremendous changes to the nearby islands of Egmont and Mullet Keys. Because the story of the forts and quarantine stations were so inter-twined with the local Bird Refuge system -- a brief mention of them is essential to understand the story.

Throughout the 19th Century, the threats of malaria and yellow fever epidemics were a living nightmare for the people of the Southeastern states. Yet the causes of these diseases were unknown until 1900 when Doctors Lazear and Reed proved that the *Aedes aegypti* mosquito was responsible. Until their discovery, doctors could do little to help the suffering of their patients, but at least they could reduce the spread of the disease by quarantining the sick. This idea could be taken one step further by medical inspection of ships from ports that were known to have epidemics. Egmont Key had three temporary quarantine camps in 1864, 1889, and 1898. The State Board of Health built a permanent station on Mullet Key in 1890. That station was taken over by the US Marine Hospital Service (now known as US Public Health Service) in 1902, and remained there until moved to the mainland in 1937.

The Spanish-American War (1898) had an even greater impact on Egmont and Mullet Keys. During that war, there were great fears that the Spanish Navy might raid US port cities such as Tampa. This resulted in the US Army building coastal forts on both islands. The main fort was called Fort Dade (1899-1921) on Egmont Key, and a second fort was Fort De Soto (1902-10) on Mullet Key. These forts had a typical combined peacetime strength of slightly over two hundred officers and men, reaching a maximum of 680 in 1918. After deactivation, both forts remained in caretaker status until the early 1930s when the Army abandoned them.

EROSION

Beach erosion was another major problem. Passage Key had been changing shape for centuries. In January 1903 the island measured approximately 3100 feet long by 1000 feet wide. By July 1917, it had eroded to 2600 feet by 325 feet. At the later date, the island was a sandy ridge (mixed with shell), no more than three or four feet above low tide. There were two ponds, the larger one being about two feet deep with a muddy bottom. The island was also covered by mangrove trees 20 to 30 feet in height.

Erosion was also a problem at the two forts. The Army Corps of Engineers had some success with seawalls and jetties on the south end of Egmont Key, and Pillsbury hoped that a similar project could be done on Passage Key. In August of 1913, Pillsbury received an estimate of \$5,280, from M. G. Rushton, of Bradentown, to build eight jetties, but the Biological Survey lacked funds. Pillsbury again suggested in 1914 that even two jetties, costing six hundred dollars might "make a secure place for the skimmers to nest". And yet, the placement of jetties and seawalls could be very tricky. Some of the Army Engineer's seawall efforts at the forts proved more harmful than good. After rethinking the situation, Pillsbury stated in 1916 "I have to advise that I cannot now recommend as I did three years ago, the construction of jetties ... on account of the last sand ridge having been washed away there is nothing to prevent the high

¹⁴ corresp. Pillsbury to Bancroft, July 31, 1914, National Archives, RG 22, Entry 162, Box 121, File: Passage Key 1907-15.

tides, in rough weather, cutting around in back of the jetties. The effect of this would be to hasten the erosion rather than to catch the sand.”¹⁵

After many years of the destructive pounding by the surf, a bill to appropriated \$10,000 was introduced in the US Senate (S. 559 in May 1919) for jetties and seawalls. That bill failed, but was resubmitted twice (S. 628 in April 1921; and S. 822 in December 1923) with no success. Then on January 21, 1924, Kerry C. Wallace, Secretary of Agriculture, wrote “... for a number of years, the island has been gradually washing away through the action of storms and currents and, at present time, it has almost entirely disappeared, and the birds that formerly frequented it are now nesting on near-by keys. In view of these conditions and the uncertainty of the restoration of the key by the plan proposed, we believe that the appropriation of funds for the purpose mentioned in the bill would not be justified.”

ARMY TOWER DISASTER

Over at Fort Dade, a study of the fire control systems [*gunnery direction*] (called the Davis Board) in June 1917, proposed that two auxiliary fire control towers should be built on Passage Key. However, it was not until March 29, 1920 before the actually construction started. Everyone (except Lt. Col. W. J. Barden, who was in charge) knew that Passage Key was a bird refuge, and everyone assumed that someone else would get permission for building the towers. The results of this error were disastrous. The Army’s detachment of civilian labors went to the island in the middle of the breeding season, and even though the workers was instructed to avoid harming the birds, they cut paths through the mangrove trees, and the noise of the hammers drove many birds away. An equally destructive incident occurred when the engineers decided to check the location of the tower with survey instruments. This sighting required the cutting off of the tops of the mangrove trees, disregarding several birds’ nests.

In the end, everyone in the Army was apologetic, and said that they never wished to harm the birds. There was never any attempt to “pass the buck”, and the Assistant Engineer (civilian), Mr. W. W. Fineren, freely accepted the blame for the incident, stating that “it was thoughtlessness on his part not to have informed Colonel Barden that it was a bird reservation and not to have suggested to him that permission be obtained from the Department of Agriculture”.¹⁶ The War Department agreed to publish a nationwide order forbidding the trespassing on wildlife refuges (except for the urgent needs of a national emergency) without the guide of a wildlife warden. The Secretary of Agriculture did not press charges.

Mr. Pillsbury was still bitter about the incident for a long time. Others in the Army were less sympathetic, claiming that it would not matter much longer because the island was washing away.

By August of 1921, the erosion had undermined one of these towers, causing it to lean ten degrees, and the second tower also appeared to be in danger. The Army Engineers decided that there was no point in trying to save the towers and on September 23rd the Secretary of War

¹⁵ corresp. Pillsbury to chief of Biological Survey, Jan 8, 1916, National Archives, RG 22, Entry 162, Box 122, File: Passage Key 1916-32.

¹⁶ Memorandum For the Chief of Bureau, May 10, 1920; and Memorandum For the Secretary, May 17, 1920, National Archives, College Park, MD, RG 22, Entry 162, Box 122.

approved their abandonment.

HURRICANE OF 1921

There was a devastating hurricane, on October 25, 1921. The storm surge, which was over seven feet, washed over all of the islands of lower Tampa Bay. Pillsbury reported, on November 12th:

Passage Key was completely washed away. The foliage of Indian Key was badly wind whipped, the tall mangrove trees ... looked like they had been burnt. Fort De Soto suffered much from the storm. The barracks, mess hall, and one battery were undermined, and the wharf was washed away. At Fort Dade the loss was very severe. ... All this coast was badly washed. ... Cortez was almost entirely washed away. I have seen a number of dead Gulls, Terns, and Cormorants. Lieut. Knap said there were dead birds on Fort Dade. Pilot Fogarty told me that he saw between fifteen and thirty thousand Cormorants resting on Egmont Key the day after the storm. ... There has been a fire menace at Fort De Soto since the wreckage dried and we are burning now.

The storm also cut the underwater telephone cable between Fort Dade and Bradenton. That cable had a junction box on Passage Key, which was also washed away. In the same report, Pillsbury stated: "This week I have been very busy with my boat working on the cable between Fort Dade and Manatee River. It was damaged at Passage Key and we had to cut out about 75 feet and put in a new splice. The cable was under water and we had to build a platform to work on. We also worked on the connection at Shaw's Point. There had been no telephone service from Fort Dade since the storm."

ASA PILLSBURY RESIGNS

The head of Game and Bird Reservations, Herman F. Stone, visited the islands on January 24th and 25th, 1922. Stone had informed Pillsbury of his planned visit, by letter on December 28th, and again by telegram when he arrived in St. Petersburg. When Pillsbury failed to show, Stone chartered a boat and sailed for Fort De Soto. He found that Pillsbury's house was vacated and padlocked. He then talked to Dr. Hollis, in charge the quarantine station, on the same island. Hollis had no information except to say that a telegram had arrived that morning for Pillsbury (presumably the one from Stone). Stone then inquired at Fort Dade. Captain Morris C. Handwerk, commanding the fort, was surprised that Pillsbury's house had been abandoned. Stone also learned that Pillsbury was having some friction with both the soldiers and the people at the quarantine station.¹⁷

Pillsbury explained that his motor boat had been trapped (except at high tide), by the shifting sands, in the lagoon at Mullet Key, by last years storm. That storm had also caused \$550.00 damage to Pillsbury's house. Thus it is probable that the house was too uncomfortable to continue living there. However, there is no record that he ever let his supervisor know that he had moved. The local mail system had also been reduced to three times a week since Fort Dade was deactivated in August of 1921.

¹⁷ Report Feb 18, 1922, National Archives, RG 22, Entry 162, Box 122, File: Passage Key - General 1916-22; and corresp. Stone to Pillsbury Dec. 28, 1921, RG 22, Entry 162, Box 148, File: Tampa Bay General 1911-33.

On March 8th, 1922, Pillsbury sent in his resignation. He was replaced, later that year, by Perry E. Wetmore, of Gulfport [village located between St. Petersburg, and Fort De Soto]. Wetmore was replaced in February, 1924, by William G. Fargo, also of Gulfport. By June of that same year, Fargo was replaced by Harold P. Bennett, of St. Petersburg. However, all of these men appear to have only been part time wardens. In those early years, the wardens often depended on the local Audubon Society for their salary, yet Florida was suffering an economic depression throughout most of the 1920s.

PASSAGE KEY RECOVERS

In July of 1926, the island was described as being two sandbars, with a total of less than four acres. By 1927 these small lumps of sand had colonies of laughing gulls, terns, skimmers, cormorants, and sand pipers, but the egrets had not returned. Over the next few years the island made a tremendous comeback without the aid of jetties or seawalls. Another survey in October 1932 measured 36.37 acres. It was still little more than a sand bar with a few weeds (*Atriplex aremaria*). A real estate survey about the same time estimated the islands value at \$206.85.

On June 30, 1943, the War Department asked the Secretary of Interior if Passage Key might be used for bomber training. Passage Key was very small then, and the needs of the war were everyone's primary concern. The Interior Department agreed to the request "provided it is not used during the nesting season, which extends from April 15 to July 15 of each year ...[and] as long as such use may be necessary, but not beyond the expiration of the six months period following the termination of the unlimited national emergency." The Passage Key Bombing and Gunnery Range was returned to the Interior Department on March 22, 1946.

No record has been found about the effects of the bombing on the bird colonies. The reader might note the reaction of the birds during the artillery target practice at Fort Dade. At the sound of the gun, the birds for many miles, up and down the coast would rise up in huge clouds, and after a few minutes, would settle back down until the next thunderous boom. Birds have a way of adapting to numerous environments, including noisy airports.

After the war, Passage Key grew to twenty acres, with several Australian Pine Trees up to 12 feet in height, and it looked like the island was going to recover. Then the island was again washed away in the severe storm of 1956. By 1971, the island had once again grown to 20 acres.

OTHER RESERVATIONS IN TAMPA BAY

By 1908, lower Tampa Bay became home to two other bird refuges. Palma Sola, a small island at the north east corner of the entrance to Palma Sola Bay, became refuge number twenty-two on September 26, 1908. However, Palma Sola was removed from the refuge system after it washed away in the storm of 1948.

A more important group of islands was acquired northeast of Mullet Key. On February 10, 1907, the island of Indian Key became refuge number seven. This refuge was enlarged in 1920-21 by the addition of Bush Key (also known as Tarpon), Pine Key, and the tiny islands of Cow-and-Calf, and Jackass Keys. Over the years, several other nearby islands were added to form the Pinellas Wildlife Refuge on April 1, 1951. Today the Pinellas Wildlife Refuge has 403

acres.

With the addition of the Indian Key Reservation (9 miles to the north) in 1908, Pillsbury's house on Passage Key became an inconvenient location. A better location was found about halfway between the two bird refuges at Fort De Soto, which had recently been reduced to caretaker status. On July 13, 1913 the Secretary of Agriculture asked the Secretary of War for permission for Pillsbury to use one of the houses at Fort De Soto. Permission was granted on August 20th, and Pillsbury moved into the old commanding officers quarters (Bldg. 18). Pillsbury retired in 1922, and none of his successors took over the residence at Fort De Soto (which was no doubt badly deteriorated from storm and neglect), and so in 1933, the War Department revoked that license.

After moving to Mullet Key, Pillsbury established friendly relations with the commanding officer at Fort Dade, Major Robert Wyllie. However, several junior officers showed contempt for the bird regulations. Because the Army was providing free housing for Pillsbury, they saw nothing wrong with picnicking on the federal reservation of Passage Key. Also the Sergeant, who was the caretaker at Fort De Soto, let (and possibly encouraged) his mischievous children play around the Pillsbury house. Major Wyllie quickly put a stop to this. Major Wyllie also made the unprecedented move of banning bird hunting on both of the nearby military reservations.

Then on November 10th, 1938, the northern four large islands of the Mullet Key (s) group were designated as a bird refuge for about three years. Little was done with this refuge before World War II changed everything. The Army Air Corps built a large air field south of Tampa, known as McDill Field, to train bomber crews. Because both Egmont Key and Mullet Key were abandoned War Department lands, the Air Corps wanted to use both of these islands as bombing ranges. This plan would have included closing the main ship channel, and thus greatly reduce the shipping business into Tampa Bay. Cooler heads prevailed and they settled on just using Mullet Key. The four northern islands of the Mullet Key group were transferred back to the War Department on April 8, 1941. After the war, the Mullet Key group was transferred to Pinellas County as a park. Much of this park is also now used as a bird sanctuary.

In July of 1974, Egmont Key joined the National Wild Life system making lower Tampa Bay a major bird sanctuary.