

LEE KONG CHIAN NATURAL HISTORY MUSEUM

2021

BEAST, GUARDIAN, ISLAND



The Saltwater Crocodile
(*Crocodylus porosus* Schneider, 1801)
in Singapore, 1819–2017

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Das Krokodil zu Singapur

Im heil'gen Teich zu Singapur
Da liegt ein altes Krokodil
Von äußerst grämlicher Natur
Und kaut an einem Lotusstil.

Es ist ganz alt und völlig blind,
Und wenn es einmal friert des Nachts,
So weint es wie ein kleines Kind,
Doch wenn ein schöner Tag ist, lacht's.

Hermann Von Lingg (1905)

The Crocodile of Singapore

In the Holy Pond of Singapore
There is an ancient Crocodile,
Of an extremely awful nature,
It chews upon a lotus stem.

It's old and now completely blind,
And when the night is freezing cold,
It weeps just like a little child,
But in the day's warm light it laughs.

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INTRODUCTION

There is an intrigue that holds almost any human upon the subject of crocodilians. Perhaps it is through the idealised mystery of ‘creatures that lurk’, a relationship that has such limited domestic interaction between ‘us’ and ‘them’; or one that is perceived of an ‘ancient’ belief in sly masqueraders and the underworld. Crocodiles, as we know them today, have existed for millennia and are likened to living fossils and mythical wonders. The term ‘crocodile’ derives from the Greek ‘Krokē’ and ‘Dilos’; Pebble + Worm; so becoming ‘krokodilos’ or worm of the stones. Throughout the human world, crocodiles have become representatives within religious iconography; most commonly recognised is the crocodile-headed deity ‘Sobek’ in the statues and scriptures of Ancient Egypt from as early as c. 2686 BCE, and those featured in the monumental stone carving of Stela 25 from Izapa in Chiapas, Mexico, as early as 300 BCE.

There are 25 extant species of crocodilians, from the alligators of the Americas to the gharials of southern Asia and the freshwater Johnstone’s crocodile of Australia. In Singapore and Malaysia is the saltwater crocodile, *Crocodylus porosus* Schneider, 1801, the largest of all living reptiles. Most females are no larger than 3.5 metres in length and the average maximum size of males around 4.5 metres in length (Webb & Manolis, 1989), though some individuals have been found measuring over 6 metres (Britton et al., 2012; Fukuda et al., 2018). The species is not at all limited to the region, instead occupying an extensive distribution range from northern Australia through Southeast Asia, South Asia and some of Oceania, where it is mostly considered to be of ‘Least Concern’ on the scale of extinction threat. The broad distribution range is partly due to their ability to venture out in the open sea (Campbell et al., 2010). *Crocodylus porosus* is most common in mangrove areas, but, upon laying eggs, females will seek water bodies unaffected by tidal movements (Department of the Environment, 2017) such as inland swamps and freshwater areas including lakes, lagoons and reservoirs.

In 1996, the IUCN-SSC Crocodile Specialist Group assigned the status ‘Regionally Extinct’ to *Crocodylus porosus* in Singapore for the International Union for Conservation of Nature (IUCN) Red List (Crocodile Specialist Group, 1996), where ‘region’ denotes a “subglobal geographically defined area, such as a continent, country, state, or province” (IUCN, 2012). No study appears for the status review, and *Crocodylus porosus* is still considered ‘regionally extinct in Singapore’. As such, this paper provides a basis for future amendment, with continuous accounts of both historical and current presence. It should also be noted that the species was marked ‘Endangered’ in the Singapore Red Data Book of 1994 (Ng & Wee, 1994), and ‘Critically Endangered’ in the second edition (Davison et al., 2008) in Singapore.

While the highs and lows of population numbers parallel the turbulence of habitat changes such as agriculture and urban development, cultural and societal aspects have also played a part in the rise and decline of species. The hunt-to-kill and subsequent demise of the Malayan Tiger in Singapore in 1930 (Low & Pocklington, 2019) is a prime example. The same approach can be seen throughout the documented history of crocodiles in Singapore, where belief, trade, wonder and fear have culminated in the ruptured, though resilient, numbers of *Crocodylus porosus* in Singapore.

The aim of this ebook is to also provide a cultural and societal background for human interaction with crocodiles in Singapore. It aims to establish a collated resource of the historical and contemporary distribution of crocodiles in Singapore between 1819 and 2017, in order to support the need for a revision of IUCN’s 1996 status of ‘regionally extinct’ for *Crocodylus porosus* in Singapore.

MATERIALS AND METHODS OF DATA COLLECTION

All records in this study are considered *Crocodylus porosus* Schneider, 1801, due to the species' known distribution and the absence of evidence for any other species. Species verification was based on written and photographic sources within Singapore, as well as specimens donated to the Raffles Museum (now Lee Kong Chian Natural History Museum). The spectrum of analysed data incorporated these records alongside public histories found in the digitised newspaper archives of Singapore's National Library Board. Keyword searches in this resource were made within 12 newspapers: 'The Singapore Free Press and Mercantile Advertiser' (1835–1869, 1884–1942), 'Straits Times Overland Journal' (1869–1881), 'Straits Times Weekly Issue' (1883–1893), 'Daily Advertiser' (1890–1894), 'Mid-day Herald' (1895–1898), 'Eastern Daily Mail and Straits Morning Advertiser' (1905–1907), 'The Singapore Free Press' (1925–1962), 'New Nation' (1971–1982), 'Singapore Monitor' (1982–1985) and current newspapers 'The Straits Times' (est. 1845), 'Lianhe Wanbao' (联合晚报; est. 1983) and 'Today' (est. 2000). It should be noted that some eras lack data due to the upheaval of World War II and copyright barriers to access.

Keyword search terms utilised were 'crocodile', 'buaya' [= crocodile; Bahasa Melayu] and 鳄鱼 [Èyú = crocodile, also alligator, crocodilian, caiman; Chinese Mandarin]. English search terms extended to 'alligator', 'saurian' and 'gharial' due to repeated misuse of common names. For example, 'alligator' was used regarding crocodiles until 1957 (The Straits Times [ST], 1957a), and also in crocodile farms when referring to the false gharial *Tomistoma schlegelii* (Müller, 1838) (Harrison & Tham, 1973: 253).

Lists compiled by staff at the Lee Kong Chian Natural History Museum and nature interest groups such as the Vertebrate Study Group of The Nature Society (Singapore) (VSS) were included, and recent social media sites and blogs, such as Facebook and Stomp where sources could be verified, were monitored. An 18-month project within the NUS Museum prep-room project, 'Buaya: The Making of a Non-Myth', also aided the collation of further data via personal communication with members of the public.

Though some references are not uniquely scientific (i.e., from scientific journals), they serve as strong, founded historical evidence of the presence of *Crocodylus porosus*, providing relevant occurrences, details of individuals, localities and ensuing actions, as well as measurements that were often taken from captured or culled crocodiles.

Locality data was plotted on various historical and modern maps, integrating existing and expunged locations that were verified to ± 2 km in most instances. Online maps at the National Archives of Singapore aided to identify now-obsolete locations such as milestone localities, e.g., "at (the 3rd mile) Serangoon" (Daily Advertiser, 1894: 3), and "near the seven and a half milestone, Bukit-Timah road" (The Singapore Free Press and Mercantile Advertiser [SFPMA], 1900: 2).

By categorising accounts, it is possible to show: (1) sightings, (2) captured and/or killed crocodiles, (3) non-fatal attacks on humans, and (4) fatal attacks on humans. The joint categorisation of captures and kills is due to the unknown fate of captured crocodiles and the likelihood of death being high as no species relocation was instigated until recently.

Some records created overlaps, e.g., a crocodile attacking a human and the human retaliating, or sightings leading to subsequent captures, ultimately leading to death. 'Sightings' mostly indicate no known further action taken. Only measurements from captured or killed individuals were used for analysis since reported lengths from sightings often proved unreliable and were often exaggerated, e.g., the largest individual sighted being "at least 30 feet long" (9.14 m) (ST, 1878a: 3).

Forty-two omitted records included duplicates of the same incident by different sources, and of the same crocodile but in different incidents. These were determined by locality and timeframe, e.g., a crocodile sighted on 'day x' and captured later on 'day y' in the same vicinity. Twelve results from areas in the northwesterly region stating 'Sungei Buloh' as their location were removed due to duplicates, and based on the known crocodiles in the northwesterly region, e.g., from photographs showing identification markers by colouration.

CROCODILIAN SPECIES IN SINGAPORE

Several crocodilian species are known to inhabit Southeast Asia, yet *Crocodylus porosus* is the only species found wild in Singapore today. In the 200 years since colonial establishment moved into Singapore in 1819, only two records of other species were found, both with uncertain origins and no evidence of established populations. Given that a few populations of *Tomistoma schlegelii* still occur in the Malay Peninsula, there may have been some cases in Singapore in the past, though these have remained undocumented. These aspects are discussed below to ensure subsequent results are understood for *Crocodylus porosus* only.

1. A juvenile specimen of the mugger crocodile, *Crocodylus palustris* Lesson, 1831, is catalogued as the (unaccepted) synonym *Crocodylus trigonops* Gray, 1844, at the Natural History Museum in London (NHMUK) (Natural History Museum Data Portal, 2017), and states a Singapore locality. Gray's (1844) 'Catalogue of the Tortoises, Crocodiles, and Amphisbænians, in the Collection of the British Museum' lists the specimen together with one from India, where the mugger crocodile is native and limited to Southern Asia (Choudhury & de Silva, 2013). Ridley (1899) stated that the Danish zoologist, Theodore Edvard Cantor (1809–1860) mentioned *Crocodylus palustris* occurring in Penang, though less commonly than *Crocodylus porosus*. The only evidence to support the mugger crocodile in Singapore is the NHMUK-catalogued specimen. Based on Cantor's travels, the locality listing for the two specimens, and the abundant specimen trade within the colonial network, it is therefore presumed that the locality of this 'Singapore' specimen is incorrect, or that the specimen was bought from a dealer.
2. A record of the false gharial, *Tomistoma schlegelii* (Müller, 1838), described two juveniles caught by a fishing pond manager in a Tampines canal near the northern coast of Singapore. One of the individuals was reported and photographed in the newspaper (ST, 1991a), and identified as *Tomistoma schlegelii* by the Singapore Zoo. The species has not been recorded wild in Singapore nor the neighbouring Malaysian state of Johor (Kwan, 2011). 'The Current and Historic Distribution of *Tomistoma Schlegelii* (the false gharial) (Müller, 1838) (Crocodylia, Reptilia)' by Stuebing et al. (2006) did not note Singapore as a locality for the species. *Tomistoma schlegelii* was previously bred in captivity in Singapore and may have escaped during heavy rainfall, particularly as the total monthly rainfall, at 256.4 ml in May 1991, was the heaviest of the year (National Environment Agency, 2020). The Control of Operations Breeding Appendix-I Species in Captivity (CITES, 1993) showed the species' presence in Singapore farms in correlation with the 1991 discovery. In 1990, 15 individuals were registered in farms in Singapore for breeding and for skins. Other farms may have also held the species at that time, specifically individuals bought before Singapore joined CITES to regulate trade. These may include the 21 registered individuals in Jurong Crocodile Paradise Pte Ltd in 1993, and the 54 individuals held at the Singapore Crocodilium at East Coast Parkway.

Other species observed in the wild may have been unwanted or "escaped pets" (The Singapore Free Press [SFP], 1953: 7). In the late 1800s, a crocodile owned by a Captain Gamble had grown too large and was kept at the Botanic Gardens where it later escaped into "Swan Lake" (ST, 1892). In 1948, Mrs Wendy Wilmott was presented with a crocodile that had been flown in from Bangkok and was named Elizabeth, an example which may have been *Crocodylus siamensis* Schneider, 1801 (ST, 1948a). Young individuals have also been found, presumed to be escapees from local crocodile farms during heavy rain and flooding (SFP, 1960b; Campbell, 1972; ST, 1976b); these may or may not have been *Crocodylus porosus* in view of the range of species being bred locally.

Colloquial terms (Table 1) could have created confusion in species variation. Historically, several names existed to distinguish the behaviours of individual crocodiles, likely derived from co-existence experiences between humans and crocodiles. The names bear no evidence of species variation but are merely markers for colouration and behaviour and to distinguish types of crocodiles in local habitats.

More recently, due to Singapore's strong presence in the trade industry, three non-native species acquired common (or trade) names which miscommunicate the species' origin and locality (Table 2).

A series of trade reports between 2004 and 2013 (Caldwell, 2007–2015) disclosed numerous imports from 17 CITES-registered countries and includes both *Crocodylus siamensis* and *Crocodylus novaeguineae*. Neither species has been recorded as native to Singapore, and common name synonyms are likely due to their import, processing and export through Singapore, leading to trade names reflective of industrial processes and the surface, grain and patina of the hide.

Table 1. Colloquial terms for crocodiles in Malaysia, Indonesia and Singapore.

Language	Colloquial term	Significance / descriptor	Common name	Species
English	Alligator ¹	-	False gharial	<i>Tomistoma schlegelii</i>
Bahasa melayu	Buaya tembaga [= tembaga] ^{2, 4, 5}	Copper crocodile; yellow	Saltwater crocodile	<i>Crocodylus porosus</i>
Bahasa melayu	Buaya katak, also kodok ^{2, 4, 5}	Frog crocodile or Dwarf crocodile; “short and stout”		
Bahasa melayu	Buaya labu ²	Gourd crocodile; yellow-green in colour	Saltwater crocodile	<i>C. porosus</i>
Bahasa melayu	Buaya hitam ⁵	Black crocodile; “reported to attain a larger size than any other variety”	Saltwater crocodile	<i>C. porosus</i>
Bahasa melayu	Buaya besi ⁵	Iron crocodile, same as black crocodile; larger than any other variety	Saltwater crocodile	<i>C. porosus</i>
Bahasa melayu	Buaya lubok ⁵	Bight crocodile; “lays as many as fifty or sixty eggs in a single nest”	Saltwater crocodile	<i>C. porosus</i>
Bahasa melayu	Buaya rawang ⁵	Marsh crocodile, same as bight crocodile; said to lay 50 or 60 eggs	Mugger crocodile (assumed)	<i>C. palustris</i>
Bahasa melayu	Buaya berlumut ⁵	Mossy crocodile; is often moss-covered	Saltwater crocodile	<i>C. porosus</i>
Bahasa indonesia	Buaya senyulong ⁴	False crocodile	False gharial	<i>T. schlegelii</i>
Bahasa melayu	Buaya julong-julong ⁵	Julong-julong = halfbeak	False gharial	<i>T. schlegelii</i>
Bahasa melayu	Batang kayu ⁵	Tree-log; term used by fisherman	Crocodile	<i>Crocodylus</i> sp.
Hokkien	磨页 ³ [bua ya]		Crocodile	<i>Crocodylus</i> sp.
Hokkien	鳄鱼 ³ [ngok hur]		Crocodile	<i>Crocodylus</i> sp.

¹Chuang (1973); ²McNair & Bayliss (1899: 130); ³Tan & Lim (2015); ⁴Tarmizi bin Zainal Abidin & Syed Taha bin Syed Muhamed, pers. comm. (2015); ⁵Skeat (1900)

Table 2. Trade names miscommunicating the origin and locality of crocodilian species.

Trade name	Common name	Scientific name
Singapore small-grain ¹	Siamese crocodile	<i>Crocodylus siamensis</i> Schneider, 1801
Singapore large-scale ²	New Guinea crocodile	<i>Crocodylus novaeguineae</i> (Schmidt, 1928)
Singapore large-scale ³	Philippine crocodile	<i>Crocodylus mindorensis</i> Schmidt, 1935

¹Britton (2012a); ²Ross (1998); ³Fuchs (2006)

Albeit less frequently, *Crocodylus porosus* has also been known as the ‘Singapore small-grain’, perhaps resulting from hybridisation with *Crocodylus siamensis* bred at Singapore Crocodilium Pte Ltd (CITES, 1993), alongside high-impact trade. The hybridisation or characteristic similarities of juvenile species may have led to the term ‘Singapore small-grain’ being applied to both species (Britton, 2012b).

EARLY ENCOUNTERS

The earliest documented indication of crocodiles in Singapore appears to be in 'Hikayat Hang Tuah', or 'The Epic of Hang Tuah'. This is a manuscript estimated to have been written between 1641 and 1739, documenting the warrior Hang Tuah, a powerful laksamana, or admiral. It is specific in mentioning a Singapore locality—the 'Old Straits'—today known as the Johor Straits to the north of Singapore (Kwa, 2004). In 'Hikayat Hang Tuah' (Muhammad & Robson-McKillop, 2010: 469), an event is depicted during the Raja of Melaka's visit to Singapore. The Raja's crown fell into the water, and when asking for it to be salvaged, "no one came forward, for the Straits of Singapura was infested with man-eating crocodiles, and its water ran very deep." A laksamana thought to be Hang Tuah stepped up and dove into the water to retrieve the crown, only for his keris to be taken by a white crocodile. While the 'Hikayat Hang Tuah' serves as a platform of truth and legend, such tales can be regarded as speculative. Nonetheless, both 'crocodile' and 'Singapore' appear together at this point in history, suggesting a knowledge of occurrence and locality at the time.

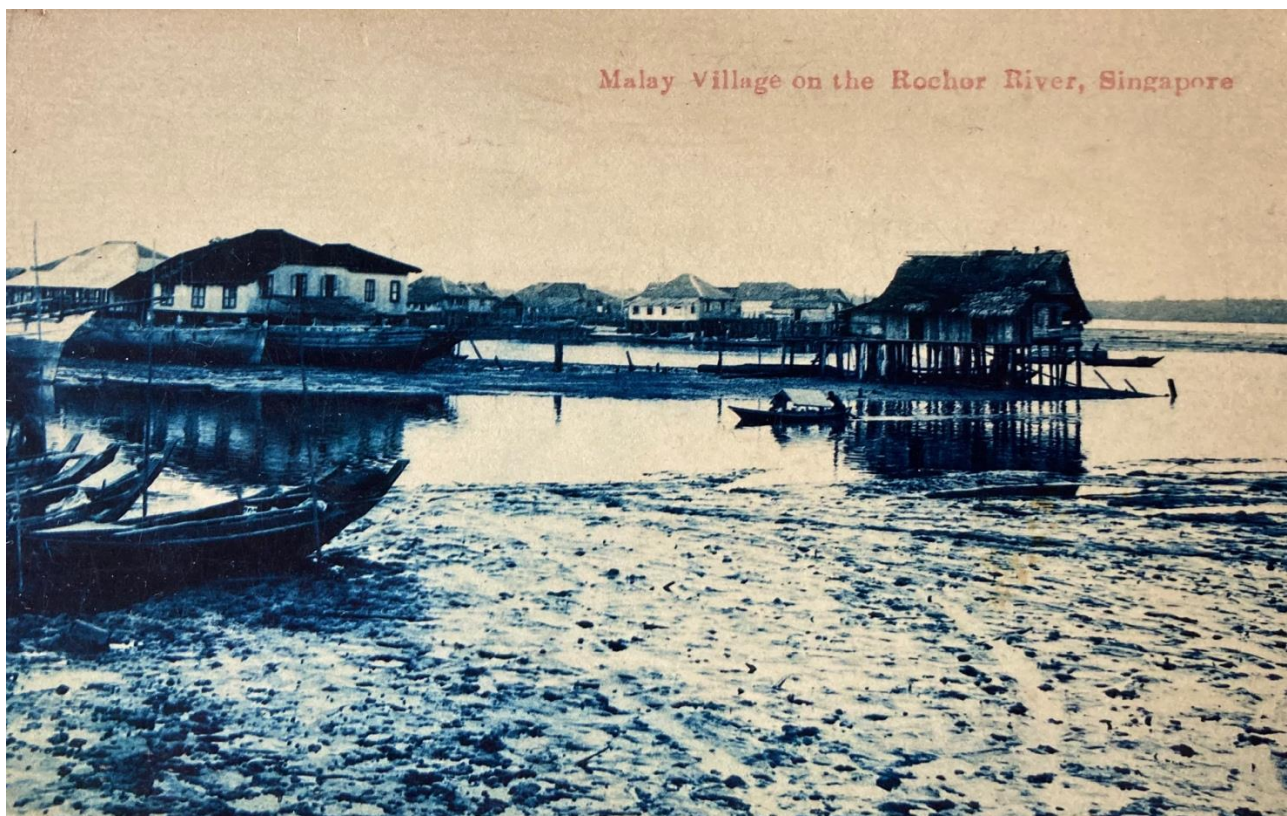


Fig. 1. The Rochor River before extensive urbanisation, where Farquhar's dog was taken by a crocodile. (Photograph: collection of the author).

No additional references to crocodiles in Singapore seem to materialise until the early 19th century, when Thomas Stamford Raffles employed a translator and scribe named Abdullah bin Abdul Kadir, known as Munshi Abdullah. In his autobiography 'Hikayat Abdullah' (Abdullah & Hill, 1969), he communicates what appears to be the first site-specific anecdote of crocodiles in Singapore during William Farquhar's residency (1819–1823). Farquhar encountered a crocodile on the bank of the Rochore River (Fig. 1), when his dog waded into the river and was taken by a crocodile measuring 3 fathoms (5.5 metres). He ordered a barricade to be constructed across the river, and the crocodile was trapped and speared to death. The carcass was later hung from a jawi-jawi (*Ficus* sp.) tree by the 'Beras Basah' [sic. Bras Basah] River, a tree which was said to be semi-sacred and located near Institution Bridge (Buckley, 1902).

While this appears to be the first record, it may also be symbolic of the kind of brutality the British inflicted upon 'unruly' subjects. For example, when Farquhar was stabbed by a Malay merchant, Sayid Yassin, his servants arrived and killed Yassin; his corpse was put in a cage and dragged through the streets before being hung by chains at Tanjong Malang for a fortnight (Rivers, 2003). Is Abdullah's account therefore a parallel semblance of this brutality; is the story of a crocodile taking the dog an accurate account? Either way, a pathway was formed for

comparisons of brutality and the savage slaughter of anything deemed 'unmanageable'; in this case, crocodiles and natives. Abdullah's intended audience has frequently been up for discussion. As Sweeney (2007) mentions, Abdullah's revisions to his texts often alternate and contradict each other, his 'allegiance' somewhat questionable, leaving truth and interpretation lingering between the lines. As a scribe hired by the British, clearly Abdullah refrained from speaking his own truth.

The death of Sayid Yassin was discussed by the artist Fyeroool Darma in his personal artist's journal during his 'After Ballads' prep-room project, which ran concurrently with the author's 'Buaya: The Making of a Non-Myth', both held at NUS Museum from 2016 to 2018. For the artist-researchers of both prep-rooms, the Farquhar-crocodile and Farquhar-Yassin cases formed correlations between the treatment of predators and that of native peoples, such as were described in Abdullah's documentations. Abdullah had noted "then for the first time people knew that there were crocodiles at Singapore". It is therefore plausible that Abdullah refers to colonial knowledge, rather than that of pre-existing communities which had settled before colonialism. It could also be a reference to the realisation of early savagery presented publicly by the British.

A SETTING OF FOLKLORE AND MYTHOLOGY

Far from accounts of savagery is the lighter note of one of the most well-known Malay folk tales that bring to light the presence of crocodiles in Malaya: the tales of Sang Kancil. This series of tales is based on a mischievous mouse-deer, Sang Kancil, and has often been adapted and illustrated for children. In one of the more famous Sang Kancil stories, the crocodile, Sang Buaya, is outwitted by Sang Kancil, who tricks him into thinking the King is having a banquet. Sang Kancil has been eyeing his favourite fruit, jambu, on the other side of the river, but cannot get across. He tells Sang Buaya to line up all the crocodiles to be counted for the banquet, and in doing so forms a bridge to the other side of the river that he then hops over. Authors Rosemarie Somiah and Sheila Wee retell such stories in a children's compendium of 'Asian Stories', while leaning into the Singapore, or Temasek, context as documented by Spagnoli (2007). The origins of such stories are difficult to ascertain due to the stories' development over time, as well as their tendency to be shared as oral histories, which undoubtedly invites adjustments.

While folklore adds anthropomorphic tales and stories to the known presence of crocodiles in society, the mythological looks deeper, with further meanings and origins that outline therianthropic and thaumaturgical modes of crocodile-human relations. Such relations are documented by Skeat (1900) and discussed by Pocklington (2019), particularly regarding the origin of the crocodile and the transformation of a person called Toh Sarilang into a crocodile. This story is reflected upon in 'The Prince of Chini' (Linehan, 1947), which describes a 'crocodile cult' in Patani and a specific family that would refuse to be present at the capture or killing of crocodiles because of their relation to Toh Sarilang. In this account, Toh Sarilang is the daughter, to whom the father makes offerings on the river bank. Descriptions of her physical transformation into a crocodile show similarities with Skeat's records. Descendants of the daughter, Betimor, are said to be able to evoke the spirit to aid in illness. Toh Sri Lam (Toh Sarilang) is said to be *keramat* (see explanation in next section), and would not bring harm to humans unless in special circumstances; descendants of Toh Sarilang (as crocodile) are said to be recognisable by their white colouration and are believed to be *keramat*.

AXIS MUNDI AND KERAMAT

These early ideas changed over time, as colonialism brought to the island huge shifts of people from a broad span of Asia and their diverse belief systems, which merged with already-established beliefs in Singapore and Malaysia. The perceptions of human-crocodile encounters and their presence in each other's lives, therefore, touch upon belief systems stemming from the huge geographical span between India and China, and of course from Southeast Asia itself: they are continuous in their construction and re-construction.

In some beliefs, which are likely to have varied and extended throughout Southeast Asia, the crocodile is occasionally depicted on the axis mundi (Fig. 2), or world tree or cosmic axis, in which a vertical plane connects the underworld to the upperworld, and intersects with the horizontal journey of life to death on earth itself. These tropes can be seen in other regions of the world, such as the Nordic Yggdrasil and the Chilean Rehue.

At times in Singapore, the crocodile is represented on the horizontal plane as a guardian projecting from the vertical plane within the underworld, a place symbolic of origins, waters and fertility (Wessing, 2006), which intersects with the crocodile's terrestrial and aquatic nature. Examples in Singapore and Malaysia that lie within a similar context include the belief in crocodiles as being sacred and *keramat*. Although a *keramat* often refers to a physical shrine, it is not an exclusively physical space or spiritual entity, instead being a complex, sacred 'shrine' to both, at once visible and invisible, and applicable to the mobile or immobile physicality of a spirit. This perception of the crocodile is aligned with its natural placement on earth, where it traverses both water and land, boundaries that have become human-defined and ever-changing; crocodiles appear on the horizontal plane and are thus considered guardians by definition of belief.

As mentioned, the notion of *keramat* is not simplistic—it is not defined by one thing or another. It is a spiritual place, a placement of an object, or a being; often providing protection or believed to cure sickness through otherworldly power. Often a shrine is built for identification of a place, or word of mouth gives pointers to locations, and in Singapore and Peninsular Malaysia there are those associated with, or perceived to be, crocodiles.



Fig. 2. The axis mundi, from 'Buayapura' (Pocklington, 2019). (Image credit: Fyerool Darma, for the Singapore Bicentennial Office).

In 1939, an article titled 'Singapore's Keramats' (ST, 1939c: 16) provided a guide with directions to accessing physical keramats. The article stated:

Continue along South Bridge Road as far as the intersection with Upper Hokkien Street, turn left and go up it, cross New Bridge Road again and proceed along Havelock Road until just before you reach the Bintang (Ho Hong) oil mills. On the hill opposite is the keramat of Jangal Pir, whose existence I first became aware of when looking at an old map of Singapore drawn in 1842. It is reached by a path from a small side street. Legend says that many years ago when this part of the town was not yet built on, a white crocodile would come out of the river and climb the hill near the present narrow path on a certain night each week and sleep beside the tomb, returning to the river next morning.

The location of the keramat can be seen on the 1854 'Plan of the Town of Singapore and its Environs', which was made in 1842 by a government surveyor. This map validates the account by the 1939 article of the keramat appearing on an 1842 map, and another by Rivers (2003) of its appearance on an 1854 map. The Straits Times article refers to 'Jangal Pir', which Schluchter (2019: 172) explains is a name "suggesting their origins as purely local Bengali holy men." Rivers (2003: 102) includes that it was "an Indian-type tomb said to be the grave of a master fisherman" and was located on a hill off Havelock Road, suggesting that both accounts likely refer to the same keramat, with a similar oral history.

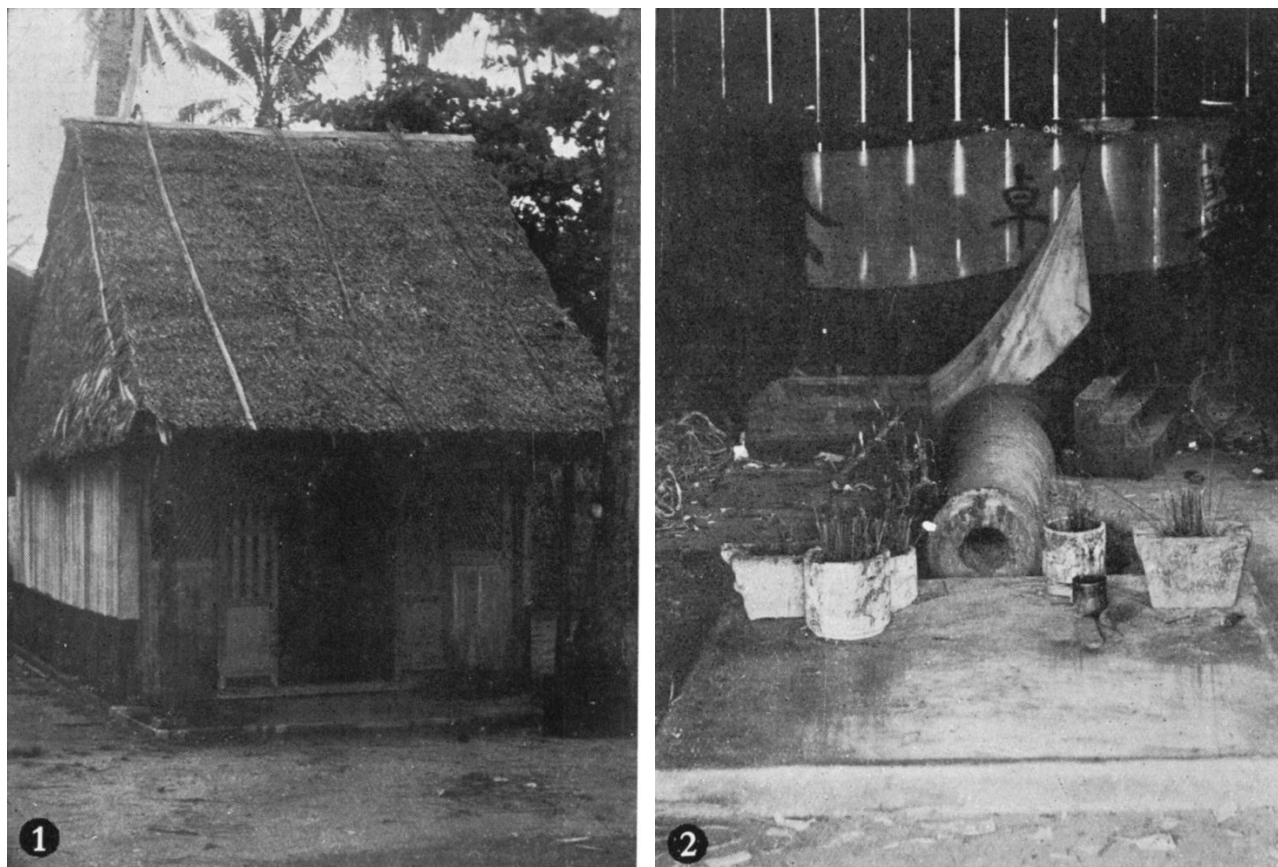
On the 'Plan of the Town of Singapore and its Environs' (Urban Redevelopment Authority, 1854), the keramat can be located in an undocumented area on the map alongside 'water tanks', at what has since been developed into the York Hill Estate. The keramat is likely long gone; following the location descriptions today leads to the area of Jalan Minyak and Chin Swee Road elevated in the direction of York Hill, with building development having risen from the 1960s. From both accounts, it is possible to ascertain that the visit by the white crocodile links directly to the 'holy' aspects of 'Jangal Pir', and, from the grave belonging a master fisherman, associations of the crocodile with guardian and protector, particularly that of fishermen.

Expanding on the theme of white crocodiles, Skeat (1900: 37) states, "I may add that royal blood is supposed by many Malays to be white, and this is the pivot on which the plot of not a few Malay folk-tales is made to turn." Open to interpretation, the allure of the white crocodile appears to be driven by more than this biological trait alone, and it continues to be one of mystery. The first indication of crocodiles in Singapore is accompanied by this trope in the Hikayat Hang Tuah story, where the white crocodile steals the laksamana's kris. Oral histories even today continue to allude to a 'white crocodile' or buaya putih [puteh; Bahasa Melayu], a commonly heard story in Singapore describing a white crocodile that inhabits the Kallang River and appears every 20 years. While no evidence has ever proved its biological existence, the notion remains. Reverence for the sacred virtues of the white crocodile was shared by 'Buaya King' Lee Ah Tee when the police enlisted his help in 1983 to catch a crocodile in the Kallang River. Although Lee Ah Tee had reportedly caught more than 100 crocodiles "from the swamps and estuaries in Punggol, Potong Pasir, Whampoa River and Lim Chu Kang", Fong (1983: 1) stated that "it is understood he will lay off if it is a rare white crocodile. This is because some people believe that a white crocodile is symbolic of luck and fortune. Furthermore, white crocodiles are said to be tame and will not hurt anybody."



Figs. 3, 4. The Meriam Timbul shrine in 2016, near Pangkalan Sultan Abdul Halim Ferry Terminal, Butterworth, Malaysia. (Photographs by the author).

In Malaysia, another keramat known as 'Meriam Timbul' or 'Floating Cannon Shrine' (Figs. 3, 4) proposes links to a Singapore crocodile. This keramat is located next to Pangkalan Sultan Abdul Halim Ferry Terminal in Butterworth, which opened in 1959 to replace Mitchell's Pier, where the shrine was originally located. In two figures of the shrine (Figs. 5, 6) from Coope (1947), the cannon is seen inside a thatch-roofed hut surrounded by joss sticks and other items, particularly fishing nets from local fishermen who believed they would be blessed with good luck. It is unclear whether the location of the shrine remains the same, but at some point since the opening of the newer ferry terminal, the shrine underwent an upgrade. It is now housed in a solid building with a door and several motifs and items within, including joss sticks, fresh flowers and notices, which impresses upon any visitor that it is still regularly visited and maintained.



Figs. 5, 6. The Meriam Timbul shrine in the 1940s at Mitchell Pier, Butterworth. (Photograph from: Coope, 1947: pl. 13 figs. 1, 2. Reproduced with permission from the Journal of the Malayan Branch of the Royal Asiatic Society).

Coope's research reported many variations to the origins of the shrine and the cannon, but all were speculative and many folkloric. Of interest to this paper is the version that relates to the warrior, 'Panglima Ah Chong', and a crocodile donated to the Raffles Museum (now the Lee Kong Chian Natural History Museum) in September 1887. It was shot on the Serangoon riverbank by George Paddison Owen (1850–1928) and, at 4.72 metres, was the largest full specimen (Fig. 12) owned by the museum until recent years, when its length was surpassed by that of 'Kaiser', a preserved captive crocodile donated by the Singapore Zoo. The 1887 crocodile was preserved by the Raffles Museum taxidermist, L.A. Fernandis, and is still on display today. Coope (1947: 127) wrote:

Another Chinese tradition, which probably has no connection with that above mentioned, is that the Butterworth cannon belonged to "Panglima" (Warrior) Ah Chong, a bravo of the inter-Chinese ways which took place in the Larut tin-fields in 1862 and last sporadically for ten years. (This warrior turned into a crocodile on his death and this crocodile is now the biggest stuffed crocodile in Raffles museum, Singapore, though the Director is unaware of the fact). But this tradition is very vague indeed and is silent as to how Ah Chong's cannon came to be in the sea. In fact, the Cannon was probably in its present place before Ah Chong flourished.

Further connections between Panglima Ah Chong and Singapore can be found in the secret society of Chong's Ghee Hin clan, which was housed somewhere around Lavender Street (Woo, 2010: 28). The location of the building has since been redeveloped.

As suggested in the story of Panglima Ah Chong's cannon, the use of items associated with crocodiles as symbology extend to ethnographical use by forms of representation, with intent on protection and power. As an example, the *lantaka*, a type of swivel gun or cannon typically mounted on merchant ships from Malaysia and other countries in the region, often bears a crocodile motif on its side. A *lantaka* in the collections of the National University of Singapore (NUS) Museum has one.

Other forms of physical representation, such as 'tin ingots', are also deemed curious enough for collection and archived in museums as artefacts. These were often placed at the corner of a tin field by a talisman. Ingots were made as currency, examples of which can be seen in museums in both Singapore and Malaysia—in the Asian Civilisations Museum of Singapore, and in Han Chin Pet Soo Hakka Club in Ipoh, a miner's club founded in 1893. The British Museum (2020) purchased a crocodile tin ingot (Fig. 7), thought to be from Pahang, from Skeat in 1905.



Fig. 7. A crocodile tin ingot, purchased by the British Museum from Walter William Skeat in 1905. British Museum asset number 1425325001. (Photograph by: The British Museum, under creative commons and copyright to The Trustees of the British Museum).

The virtues of such representation have continued to contemporary times and were well documented in Singapore in both the 1950s and 1960s. Crocodile-*kramat* associations prevailed strongly in Sungei Kadut where crocodiles were held sacrosanct even until 1960. Sungei Kadut was the location of a "20-ft-long" (6.09-metre) crocodile covered in barnacles and believed to be a guardian of the river and protector of the fishermen. Pocklington & Perez's paper, 'Revulsion and Reverence' (2018), quotes from newspaper sources:

Teo Boon Chin, who had lived in the area for over 20 years, indicated the area where the crocodile made its home with "a sweep of his arm" when he was interviewed by a newspaper in March 1960. "We know the home of the *kramat*, but are not supposed to tell it to anyone," he cautioned. Another villager in Sungei Kadut by the name of Ah Lim, who had seen the crocodile "float on the river or laze about in the nearby mangrove swamp", added, "It is the guardian of our river and the protector of our fishermen."

Other crocodiles in Singapore have been defined as such, as noted by Tordy (1957: 2):

Chatting one day with a Boyanese fisherman, my interest was aroused by his story of a *kramat* crocodile which had over the past few years defied the rifle bullets of several of Singapore's noted big game hunters. "Lead me to it," I suggested. The Boyanese readily agreed and a date was fixed. After a long row along the coast from Jurong village, with an adventure-loving woman journalist I reached the known haunt of the croc at about 8 p.m. Inquired of the prawn catchers on the river below Pasa Labar revealed that the saurian usually emerged after 10 p.m. Yes, they had often seen the croc. It had, on occasions, surfaced beside their boats but had never attempted to do any harm, they said.

In the years of research conducted for this book, the author has not been made aware of any existing crocodile-*keramats*, though it is highly likely that they continue to exist in both Malaysia and Singapore.

GASTROLITHS: FROM THE BELLY OF THE CROCODILE

Is it the strength and power of crocodiles that bring about such intense belief systems? The effective fearlessness of their being? It is not only the body of the crocodile that forges a vessel interpreted by humans as power, but also the 'contents' within, in the 'belly of the crocodile'. There are examples of dead crocodiles being 'opened up' in hopes of finding treasure from human victims, or from among objects swallowed out of necessity by the crocodile. Although crocodilian gastroliths, or 'stomach stones', evidently aid crocodiles in a variety of ways and are scientifically documented, their true purpose remains under debate between scientists. It is thought that the stones

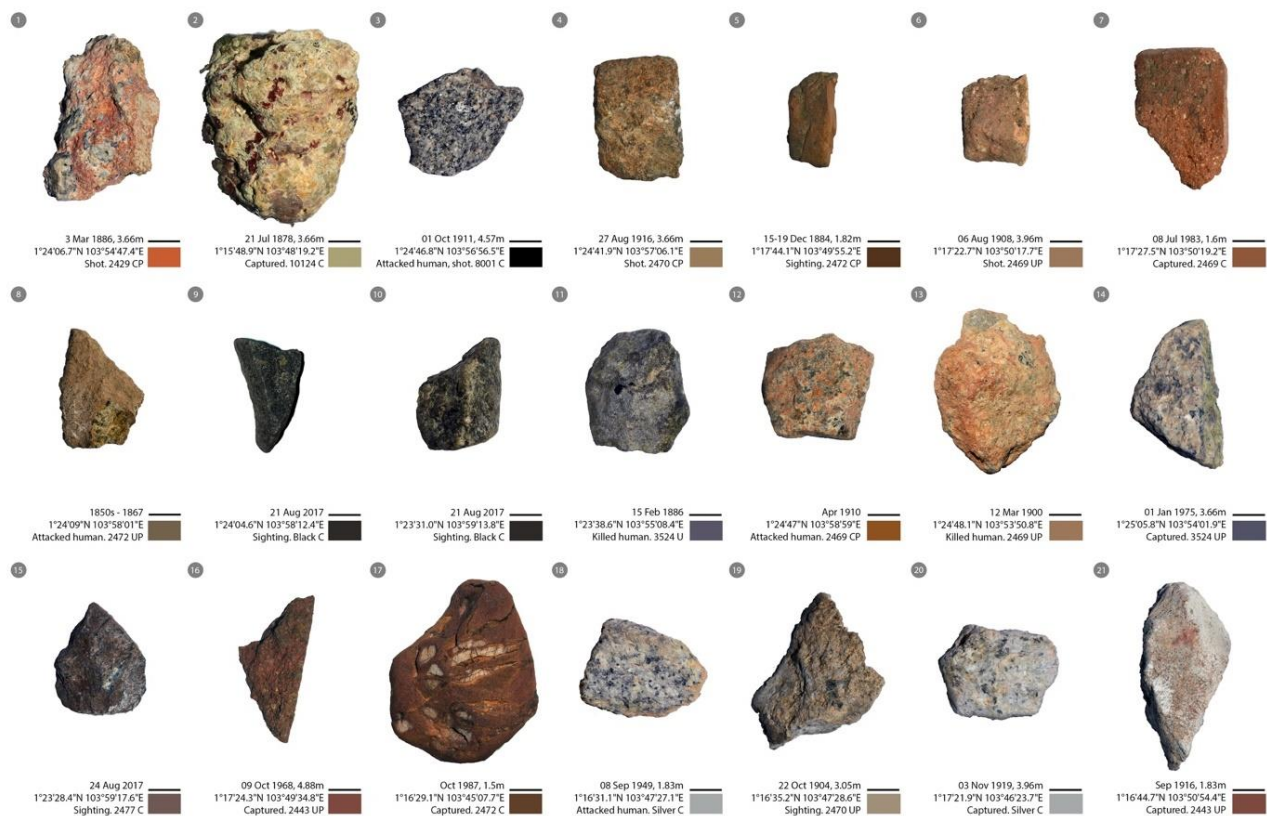


Fig. 8. A sample of the stones collected from a selection of historical crocodile localities to symbolise crocodile presence. Scale bars represent 1 cm. (Photograph by the author).



Fig. 9. Symbolic of crocodile gastroliths, these stones were collected from sites of historical records of crocodiles in Singapore and plotted on coordinates to suggest a crocodile's vision of Singapore. Part of 'Buaya: The Making of a Non-Myth' (2016-2018). (Photograph by: Terri Teo).

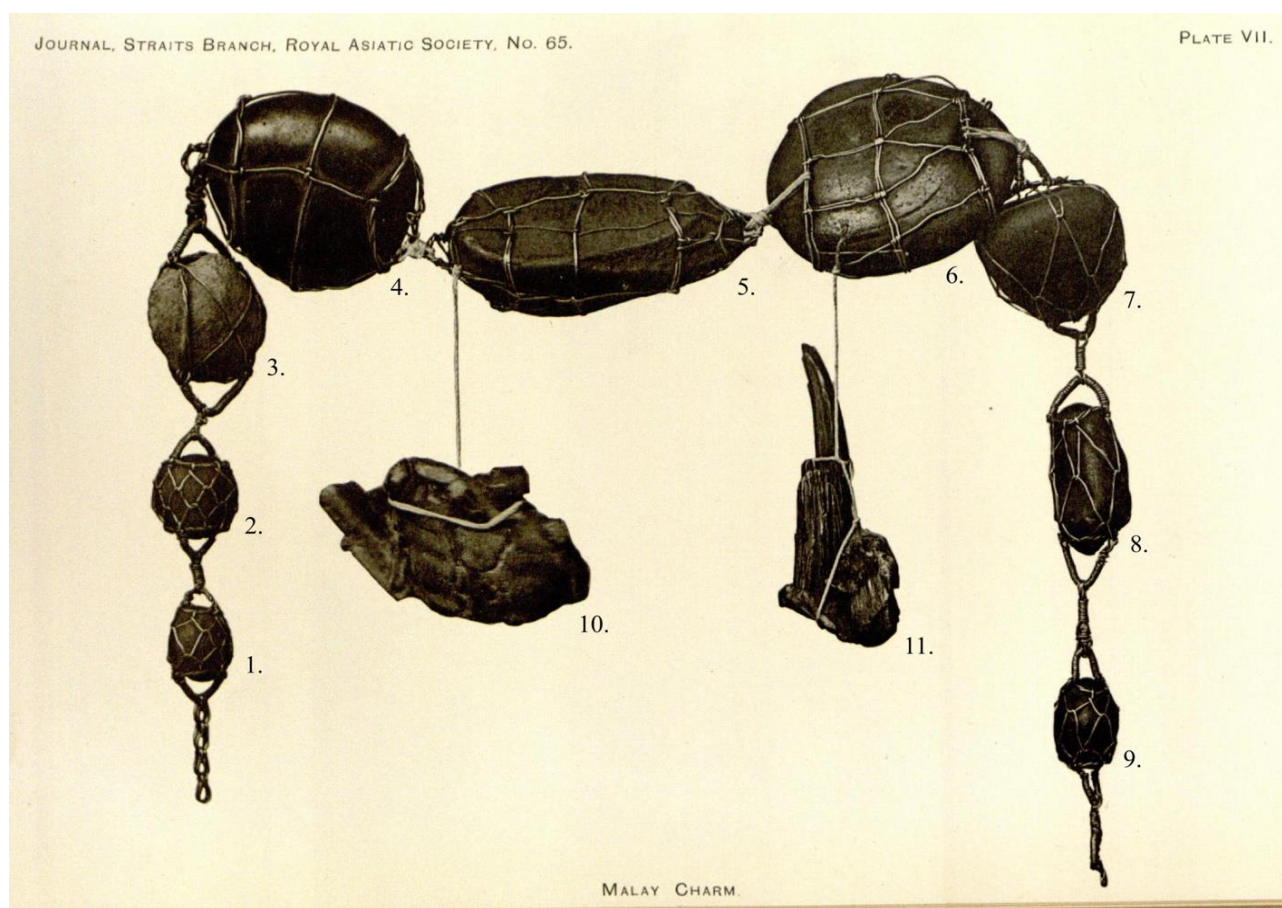


Fig. 10. A Malay charm containing crocodile gastroliths. 1, Batu buteh nangka, *Artocarpus integrifolia* Jackfruit pip?; 2, Batu dalam prut buaya, "stone from stomach of crocodile", gastrolith; 3, Isi lokan, fossilised cockle; 4, Buah beluru *Entada scandens* = *Entada rheedii*, African dream herb/sea bean; 5, Batu dalam otak buaya, "stone from brain of crocodile", possibly part of the skull; 6, same as 4, *Entada rheedii*; 7, Buah pinang, dried Areca nut (betel nut) *Areca catechu* L.; 8, same as 2 and 5, gastrolith; 9, Batu mata pirus = Batu permata pirus, turquoise; 10, unknown fossil "purchased by the man's father for seventy dollars many years ago from an uncle of the present Sultan", resembling candied *Angelica archangelica*; 11, Ketam jadi batu, fossilised crab (appendage) "borrowed from a friend for this occasion". (Photograph by: Gimlette, adapted from Gimlette, 1913: pl. VII).

can act as ballast for buoyancy and/or deeper diving, aid in digestion to crush and grate bones, or promote the production of gastric juices after a large feed (Taylor, 1993).

Both Skeat (1900) and Gimlette (1913) documented the use of gastroliths in the Malay Peninsula. During his time in the Malay Peninsula, anthropologist Walter William Skeat (1866–1953) noted them being called 'kira-kira dia' [= counting/to count as; Bahasa Melayu], and that they were said to be swallowed when a crocodile entered a river. Opening up a dead crocodile, particularly males, purportedly made it possible to count how many rivers it had entered in its lifetime (Skeat, 1900). This concept of 'counting stones' can be found in other cultures, such as for the Nile crocodile, where the stones represent how many 'birthdays' the crocodile has had.

A lengthy observation of visitors to the Raffles Museum in 1910 by 'Brathay' (SFPMA, 1910a: 1) wrote of the same belief being shared:

Ever and always the Malay children hastened back to the crocodiles urging reluctant parents hither with cries of, "Misti bilang lagi". And what were they told? Stories of how the dreaded crocodile swallows stones to keep his kira kira accurately; the number of bights he has lived in, the number of rivers crossed, and last but not least the tally of human lives devoured. How when in the water a second pair of eyes spring up on stalks and how these may be seized by a clever man, when the crocodile in pain will release his victim.

From 2016 to 2018, the NUS Museum prep-room project 'Buaya: The Making of a Non-Myth' conducted documentation of speculative gastroliths. These were based on site-specific and historical crocodile locations identified by the author (see Appendix). A stone from each location, where possible, was collected (Fig. 8) and installed on a wall based on geographical coordinates (Fig. 9). This was done to symbolise each recorded crocodile incident, while the mapping offered insights into the environmental changes of the landscape, particularly for

areas where crocodiles were once abundant but are now concrete-laden cityscapes. The project aimed to unearth the crocodile's vision within Singapore, where borders and territories enacted by humans do not exist, and where habitat becomes the crocodile's ethnography and cartography.

The incorporation of these would-be gastroliths was intended as another reference to the use of gastroliths in Malaya, as documented by John Desmond Gimlette (1867–1934) in 1913. Gimlette discovered that 'batu dalam prut buaya' and a crocodile 'brain stone', 'batu dalam otak buaya' (possibly a piece of skull), were held within a physical charm in Kota Bahru, Kelantan, Malaysia (Fig. 10). In his account, he recorded an observation of the poisoning of two men. The poison was thought to be *Datura*, a poison derived from the plant genus of the same name and often used in Malaysia for self-medication (Mohamad et al., 2009); and Gadong, also known as the poisonous *Dioscorea hispida* Dennst. or the Asiatic bitter yam. An antidote to the poison was prepared by the mother of one of the victims, who immersed the gastroliths, 'brain stone' and several other natural objects such as nuts and fossils in a bowl of water for the victims to drink. The rationale for the use of osteoderms and gastroliths is unknown, although they could be speculated to have ties to the underworld and fertility, and be able to raise life back up to the horizontal plane.

HUNT-TO-KILL: THE COMING OF THE COLONIALS

The nature of the crocodile is one that elicits instinctive fear, while its elusive character evokes notions of mystery. Perhaps it is this, combined with the ancient disposition of the crocodile, which has caused human perception of the reptile to vary so widely.

As discussed, folklore has placed the crocodile on the axis mundi as a representation of the underworld; it has painted the crocodile as a guardian of fishermen and waterways, and as a territorial marker (Wessing, 2006). This reverence is in drastic contrast to the colonial relationship with wild crocodiles. In Singapore, this varied from capturing crocodiles for pets, and the ensuing amusement, such as the 'Menagerie Race of 1889' (SFPMA, 1889: 297) where "Captain Lucy's young alligator had the longest start"; to killing them for taxidermy trophies and as displays of power; culling them due to the danger posed; characterising them as 'horrid', 'a brute', 'a scourge'; and capturing them due to their size (several were donated to the Raffles Library and Museum). The presence of crocodiles hindered deep ventures into swamps and evoked fear of what could lie beneath the water's surface, literally described by the Malay proverb 'Air yang tenang jangan disangka tiada buaya', or, 'water that is still may not be empty of crocodiles'. As if realising local beliefs, the crocodiles had become guardians and territory markers of their rivers and mangroves, which were consistently under threat of being cleared and destroyed.

In the 19th century, it became publicly apparent that the presence of crocodiles and tigers was a threat to human life in Singapore, and in September 1843, a monetary reward was started by some Chinese gambier planters as incentive for the 'destruction' of tigers. Restalrig (1843: 3) reported:

A subscription set on foot by some Chinese Gambier planters is being made to raise a fund for the destruction of Tigers. These animals have long been the scourge of the country population and it is a stigma upon the Government of Singapore that energetic measures have not hitherto been taken to arrest the frightful loss of human life thus occasioned. We do not however think this object can be directly accomplished by holding out rewards for tiger's heads. So long as there is sufficient covert they will continue to infest the Island and the occasional capture or killing of individuals will do little to check the evil. While large tracts of jungle are left to harbour the animals on which they prey they will maintain their footing in the Island and make incursions into the preserves of their human game.

Whether this subsequently inspired a government initiative, there were later offers to rid Malaya (and thus Singapore) of animals posing threats to human life, including any animals regarded as 'noxious'. Despite the government's drive to terminate crocodiles because of their 'ferocity', there were relatively few reported crocodile attacks on people in Singapore. In total, 41 official incidents occurred between the first report in 1842 and the most recent in 1989, comprising 27 non-fatal and 14 fatal attacks. These attacks occurred in or close to natural and man-made water bodies, the majority being in rivers and the sea. The majority of the victims were fishermen (see Appendix). In a few situations, retaliation transpired, with most survivors having held onto something to avoid being dragged into deeper water, as was the crocodile's seeming intent in many descriptions.

This intention is the origin of a Malay proverb 'Buaya mana tahu menolak bangkei?' (Skeat, 1900: 289), or 'when will crocodiles refuse a corpse?', where the crocodile's 'taste for human flesh' is assumed to be due to the lack of a moveable tongue. At the time, crocodiles were believed to have sets of teeth divided into three categories: the frontmost served to "Exhaust your devices", presumably disabling or disengaging the prey; while the third set was the most dangerous, regarded as "Exhausters of all Resources" or "Tearers of the Shroud", enabling the crocodile to drag prey to deeper water and bury it. Skeat (1900: 290) wrote:

... but if caught by the "Tearers of the Shroud," he is to all intents and purposes a dead man. Whenever it effects a capture the crocodile carries its victim at once below the surface, and either tries to smother him in the soft, thick mud of the mangrove swamp, or pushes him under a snag or projecting root, with the object of letting him drown, while it retires to watch him from a short distance. After what it considers a sufficient interval to effect its purpose, the crocodile seizes the body of the drowned man and rises to the surface, when it "calls upon the Sun, Moon, and Stars to bear witness" that it was not guilty of the homicide:

"Bukan aku membunuh,
Ayer yang membunuh angkau."

"It was not I who killed you,
It was the water which killed you"

A study by Fukuda et al. (2015) analysed crocodile attacks and found that drowning was the primary cause of deaths within a 42-year dataset of 87 attacks by *Crocodylus porosus* in Australia. However, Grigg & Kirshner (2015) noted that the additional concept of a crocodile dragging a victim to a lair, where it would putrefy before being consumed, remains a common myth with no supporting evidence.

In light of these observations of crocodiles dragging their victims to deeper water, there were two cases in which the victims survived by blinding the crocodile; one with a hatchet (ST, 1898b) and the other by gouging out the eyes with keys (McNair & Bayliss, 1899). L.A.S. Jermyn reports the same method in his account of crocodile hunting in Malaya (Malaya Tribune, 1929: 13), where he says, “If a crocodile gets you by the leg there is only one way to free yourself. You must stoop down rapidly and gouge his eyes out!” This is similarly documented by Cantor (1847: 15), who wrote, “when seized, they force the fingers into the eyes of the Crocodile, which immediately lets go its victim, who is farther rescued by his comrades.” It is expected that many more undocumented attacks occurred in areas with limited access to reporting methods. Those that did make it to newspapers were accompanied by interviews with survivors of the attacks, who described the attempts to drag them into deeper water.

Due to an increasing number of attacks in the second half of the 19th century, rewards were offered to eradicate crocodiles from the island. The first record of payment for a captured crocodile appeared in October 1852 (ST, 1852a: 4), nine years after the gambier planters’ fundraising for tiger culling:

... it was secured by some Chinese for whom a small subscription was raised in Commercial Square as a reward [sic] for their services. Within the last few months several persons, whilst bathing, have been attacked by alligators, and some have lost their limbs in consequence.

The reward was later valued at five dollars for an “alligator” [sic; crocodile] “upwards of nine feet in length” (ST, 1870b: 2). In 1908, it was documented as 25 cents per foot (length) for each crocodile and 10 cents for each egg in Malaya (Robinson, 1908: 932). Nests were also collected or destroyed, and in later years relocated upon discovery (Table 3)—a particularly dangerous feat if the territorial mother was in the area.

Table 3. Crocodile eggs recorded as collected, destroyed or relocated in Singapore, 1819–2017.

Date	Location	No. of eggs
8 August 1886	Trafalgar Estate, ¼ of a mile from river	36
19 April 1908	Seletar, 300 yards from river	32
27 August 1916	Pulau Ubin, “dirty water pool”	Unstated
22 July 1989	Sungei Seletar Reservoir	17
27 September 2006	Kranji Reservoir	45
8 April 2009	Freshwater ponds, Sungei Buloh	30
	Total	160

Table 4. Methods of capture or kill of crocodiles recorded in Singapore, 1819–2017.

Specified method of capture and/or kill	Total
Shot	56
Fished / netted (with fishing net or otherwise)	15
Speared / stabbed / clubbed (with spear, or long rod/pole, or knife)	11
Baited / trapped (baited with duck or chicken, or by creation of trap)	7
Noosed / lassoed / tied	6
Hook and bait / nibong	2
Mechanical (by bulldozer, car)	2

In 19 instances crocodiles were conveyed to police stations for rewards or taken to town for sale. Of the 201 recorded captures or kills, 99 stated the methods used. These methods varied (Table 4) depending on who was in pursuit; colonials typically used guns, while local communities had diverse methods including spearing (e.g., ST, 1949b); trapping; noosing (e.g., Straits Times Overland Journal, 1878b); using a hook and bait (ST, 1889); and in particular, using a nibong, much like a gorge in shape, to lacerate the stomach, as reported by The Singapore Free Press and Mercantile Advertiser (1894: 2):

This is a spike of hardwood sharpened at both ends, to the centre of which is fastened a few feet of bark rope. The nibong is secured longitudinally [sic] to the rope by a bit of thread, and is then embedded in the body of a duck. The alligator by and by swallows the duck, and after the morsel has been properly gorged, the business of discovery and capture may be properly begun [sic]. To the aforesaid length of bark rope there is fastened about 100 feet of rattan rope, the end of which is buoyed by a coconut. This apparatus is left floating about and when the duck has been swallowed and the alligator retires to his favourite haunt the first thing is to discover the whereabouts of the coconut, put a drag on the rattan rope, which will have the effect of snapping the thread and throwing the nibong spike across the gullet of the reptile and making it impossible to be dragged out if once fairly bolted.

The use of the term ‘nibong’ may reference the palm *Oncosperma tigillarium* (Jack) Ridl., which is native to areas of low salinity, including mangroves. The palm grows long thorns, known as nibong and measuring 5–10 cm, along its trunk. Their small size deems their use for capture unlikely; the name is possibly etymological due to the similarities in shape.

In Bahasa Melayu, this method of capture is termed ‘alir’, and Skeat (1900) refers to the same process as ‘mengalir’. This method is featured in an engraving in William T. Hornaday’s ‘Two Years in the Jungle’ (1904), first published in 1885 and describing crocodile hunting in Sungai Buloh, Selangor, Malaysia (Fig. 11; not to be confused with Sungei Buloh, Singapore).

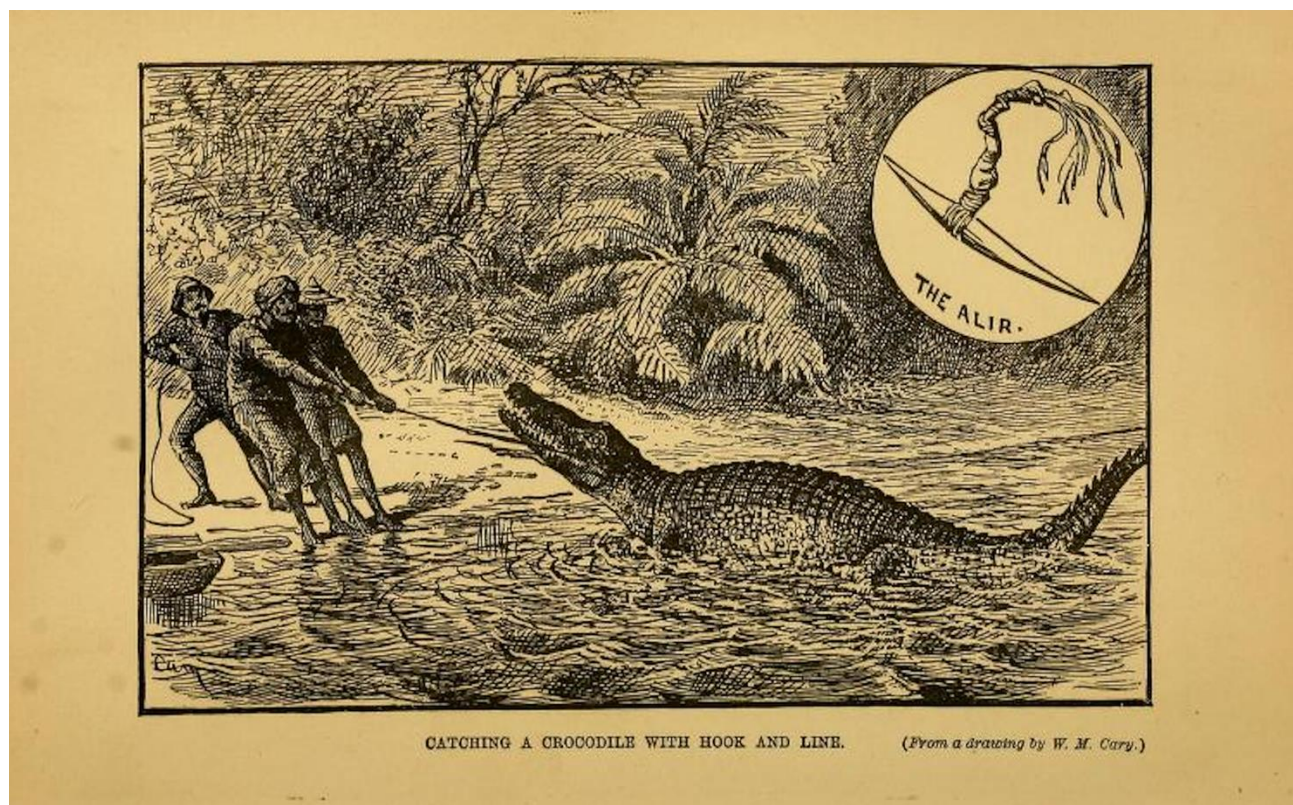


Fig. 11. ‘The Alir’ method of capturing crocodiles. (Engraving from: Hornaday, 1904: 306–307).

ENTERTAINMENT AND DISCOVERY

In the 1800s it was common for animals to be kept as pets, particularly those which were deemed ‘exotic’. Entertainment using a variety of animals was a sign of the times. The annual ‘Menagerie Race’ was a particular source of enjoyment; an 1872 engraving for ‘The Graphic’ illustrated newspaper depicted a goat, monkey, frog,

dog, turkey, goose and pelican alongside their pith-headed guides, while several years later in 1889, the newspaper reported that “the Menagerie race as usual provoked merriment: Captain Lucy’s young alligator had the longest start” (SFPMA, 1889).

In 1892, an elaborate hunt was underway for a crocodile previously owned by a Captain Gamble. In January, a Javanese gardener at the Botanic Gardens was bitten on the arm while collecting water from ‘Swan Lake’ (Straits Times Weekly Issue, 1892: 50). The lake was consequently drained and beat by 40 people, trampled, swept through with a tennis net, and finally poisoned with tuba root after “it had been contemplated to use dynamite, but, apparently, no dynamite can conveniently be had.” (ST, 1892: 3). Despite all efforts of several days’ work, the crocodile was not found.

Another younger individual was later kept at the Botanic Gardens. Director Henry Nicholas Ridley (1855–1956) described captives as “a rather stupid animal”, yet the crocodile at “the Gardens would come out of the water for a piece of meat when whistled to” (Ridley, 1899: 189).

A commission in 1933 by the Hollywood director and producer, Clyde Ernest Elliot (1885–1959), led to the capture of a 4.8-metre-long crocodile in Johor by the Orang Laut. The intention was to use it in one of Elliot’s ‘jungle pictures’ starring Frank Buck (1884–1950), famed for his animal collecting and Malaya-based motion pictures such as the 1932 ‘Bring ‘Em Back Alive’, of which ninety percent was filmed in Singapore (Singapore Daily News, 1932: 4). Buck did live in Singapore in the 1920s, at Tanjong Katong where he kept an animal enclosure. Some of these animals were used and sensationalised in his movies as vicious man-eaters. For some time in the early 20th century, he shipped animals over to the USA, making a profit by selling them to zoos and collectors (Hanson, 2004). His career then turned to motion pictures, and he filmed most or part of at least three movies in Singapore and Johor. SGFilmLocations (2012) has a wonderful, in-depth article on the Singapore-based scenes in such films, which include ‘Bring ‘Em Back Alive’ (1932), ‘Wild Cargo’ (1934) and ‘Fang and Claw’ (1935). A subsequent film, ‘Jungle and Cavalcade’, used footage from all three and was released in 1941. In an attempt to show Malaya through movies to the American audience, a filmic strategy was used to amplify the abundance of various species of animals. These films ironically used various animals that were either already dead or kept in enclosures, as Singapore Daily News (1932: 4) reported:

Another fight in “Bring ‘em Back Alive!” was between a tiger and a crocodile, and that was real to a certain extent. The crocodile, left lying in the shade of a tree. The tiger was let loose in the compound, and it was then seen to approach the crocodile’s tail. Cameras were got ready. The tiger bit the crocodile’s tail, and the crocodile turned round and bit the tiger’s shoulder. The tiger fell back and turned over two or three times. The two animals were then separated.

Despite attempts to create a documentary-like tone about the animals inhabiting a land so geographically far away from the audience, the imaginary was put on centre stage. The jungle was portrayed as an exoticised site that projected the bravado and ‘bravery’ of pith-helmeted colonials who ran against the ‘wild beasts’, ‘fangs and claws’ inhabiting this so-called dangerous locale.

The commission for a crocodile was likely intended for ‘Wild Cargo’ or ‘Fang and Claw’. The Straits Times (1933: 9) reported that the crocodile was brought to Singapore but died overnight. The captors, in hopes of a lucky find, opened it up and found a large rock and 15 dog collars. Mediations with authorities allowed the license number information to be released, leading to an unintentional early ‘tracking system’ of the crocodile’s movements. The license numbers were dated 1893 to 1931 and showed that the crocodile had been to Tebrau (1927), Segamat (1928) and Johor Bahru (1931), and had apparently swum around Singapore and was heading north on its return to south Johor. The newspaper article, in an attempt to notify the dog owners, stated “...we are, unfortunately, unable to hand over the animals as well, as the discs were found in the interior of a 16-foot, over-100-year-old crocodile”.

A more disturbing discovery made decades earlier in 1886 was of the remains of a Malay woman who had disappeared while collecting clams or prawns along the bank of the Punggol River. Weeks later, a crocodile was caught in the vicinity, and the woman was found in the stomach of the crocodile and identified by her mother (Straits Times Weekly Issue, 1886b). The specimen was donated to the Raffles Museum (Raffles Library and Museum, 1887) but is no longer part of the collections. While many of these donated specimens are no longer held in the now Lee Kong Chian Natural History Museum due to tumultuous events since the original Raffles Museum, the number of donations is highlighted in many annual reports and newspaper articles.

FOR MUSEUM AND DISCOVERY

Taxidermy specimens are vessels of scientific information that are held as the archives of the natural world, in natural history collections. As key elements to research they enable an ever-evolving understanding of the world around us, allowing insights into nature's past and transformations through time. Natural history museums established by colonials in the region paved the way for global sharing and exchange of specimens from habitats out of easy reach. The museums set up in the region aimed to showcase the natural history of surrounding areas to both inhabitants—whether colonial or 'native'—and visitors stopping over in the country. Singapore was also well known as a place for trade of natural objects; many of the tradesmen stemmed from the early 1800s, as documented by Low & Pocklington (2019).

The then Raffles Museum was a cornerstone in the exchange of specimens with British museums for scientific study; although most of the 'significant' species collected were transferred to London, more were kept as the collections in Singapore grew, and many of these still exist in the collections of the Lee Kong Chian Natural History Museum.

Documentation of existing specimens from that period, many of which retain their labels and locality information, provides information on species past and present. Documents such as the museum annual reports detail most of the larger specimens donated to the museum at the time, and these include crocodiles, some of which were reported in newspapers.

The Museum was welcoming of donations, and crocodilian specimens appeared to be particularly frequent in the late 1800s (Table 5). Unfortunately, most of the individually listed donations do not include the names of the so-called 'native' trappers, perhaps due to the acquisition term of 'donation' instead of 'purchase'. Government incentives had ceased around this time, so the capture of crocodiles generated minimal reward, as noted by *The Straits Times* (1896e: 2) after two Malay men brought a captured crocodile to the town:

We believe the Government do not now give any reward for the capture of alligators, and, as there is not very much value in an alligator's skin, the Malays are not likely to make any profit for the considerable amount of trouble they took.

It is not apparent when government incentives began or ended; some sources report the reward to no longer exist, while others report rewards in later years. The 1896 annual report of the Raffles Museum mentioned issuing a payment, suggesting that the Museum could have been an alternative source of income for trappers aside from the Government: "Reptilia:- The natives offer for sale more specimens belonging to this group than to any other" (Hanitsch, 1897: 70). It should be noted that crocodiles are not specifically mentioned in this report.

The Museum's annual report for the following year, 1897, mentions that "... specimens were bought almost daily from natives bringing them to the museum" (Hanitsch, 1898: 14). Though, again, no crocodile was mentioned.

Aside from culling, hunting was a popular leisure activity that typically focused on smaller animals within Singapore, and larger ones across the Johor Strait. Some areas were sustained with 'stock' to maintain the activity, and though hunting diminished the abundance and diversity of wild species, hunters ventured further into the forest than most people, and had a relatively strong sense of the extent of species presence.

George Paddison Owen was locally famed as a keen huntsman or 'shikari', frequently accompanying the Sultan of Johor on hunting trips (ST, 1928a). He was also present at the affair with the Botanic Gardens crocodile. Owen contributed a chapter titled 'Shikar' to 'One Hundred Years of Singapore' (Owen, 1921), giving an account of population declines in Singapore's mammals and birds due to deforestation and the introduction and cultivation of rubber trees. On crocodiles, Owen stated they "are still to be found in some of the rivers, but I have never looked upon these as game". Nonetheless, the largest crocodile specimen presented to the then Raffles Museum was shot by Owen in September 1887 in the Serangoon River (Fig. 12).

Crocodile hunters were not always placed on a pedestal and did not always make a catch. As noted in *The Singapore Free Press and Mercantile Advertiser* (1935), crocodile hunter Boey Peng Kow of McPherson Road was charged \$50 in court for endangering human life when the buck shot from his rifle ricocheted and hit a nearby attap house (*Malaya Tribune*, 1935).

Table 5. A list of crocodilian specimens presented to the Raffles Museum and Library, 1877–1939.

Date	Specimen (verbatim)	Description	Acquisition	Current location	Source
1877	Crocodile	One stuffed	Dr T.I. Rowell	Unknown	Denny (1878: 5)
1877	Alligator	One tooth	Mr Teo Guan Tye	Unknown	Denny (1878: 5)
1877	Crocodile	One	Maharajah of Johore H.H.	Unknown	Denny (1878: 5)
Dec 1877	Crocodile	One	Robert W. Maxwell Esq.	Unknown	ST (1877: 4)
Jul 1878	Crocodile	One	A.P. Talbot Esq.	Unknown	ST (1878: 3)
1878	Crocodile	(Malayan) Two skeletons, very well prepared and mounted. Articulated on the premises.	Unknown	Unknown	Denny (1879: 3)
Jan 1883	Crocodile	One	A.J. D'Souza	Unknown	ST (1883: 2)
1886	Crocodile	Recently devoured a native woman on the Ponggol river. Killed by J. Fraser Esq. of Trafalgar Estate & a friend. 11 feet.	Unknown	Unknown	Knight (1887: 99)
Sep 1887	Crocodile	Shot by G.P. Owen, 15.5 feet	Taken to Raffles Museum, stuffed by L.A. Fernandis	LKCNHM Biodiversity Gallery	ST (1908a: 7)
1887	<i>Crocodilus porosus</i>	Skull, measuring 27 1/2 inches from the snout to the supraoccipital crest. From Java.	Mr G. Edgar	LKCNHM Biodiversity Gallery	Hanitsch (1908: 40)
1899	<i>Crocodilus porosus</i>	Mounted. Nearly 12 feet in length.	G.P. Owen	Unknown	Hanitsch (1900: 33)
1899	<i>Tomistoma schlegeli</i>	Skin. Kotta baru, Indragiri, Sumatra.	G. Schneider	Unknown	Hanitsch (1900: 33)
1899	<i>Tomistoma schlegeli</i>	Skeleton, Baram, Borneo	C. Hose	Unknown	Hanitsch (1900: 33)
1899	<i>Crocodilus palustris</i>	Skin	Indian Museum, Calcutta	Unknown	Hanitsch (1900: 33)
1901	Crocodile	Eggs, two	Mr R.V. Boswell	Unknown	Hellier (1902: 4)
1903	<i>Crocodilus porosus</i>	Very large skull, 24 ½ inches, with complete dentition. The Dindings (Malaysia)	Mr R.J. Wilkinson	LKCNHM Collections	Hanitsch (1904: 62; 1908: 40)
1919	Crocodile	Skull from Celebes	Mr C.F. Baker	Unknown	Moulton (1921: 2)
10 Oct 1921	Crocodile	Eggs. The Hon. Secretary exhibited a small collection of Reptiles' eggs.	Obtained in the Malay Peninsula	Unknown	The Singapore Naturalist (1922: 31)
1924	Crocodile	Eggs from Singapore	Mr J.H. Fougere	Unknown	Boden Kloss (1926: 245)
1931	Crocodile	Mounted	Mr Song Shian Choon	Unknown	Chasen (1933: 172)
1937	Crocodile	Three skulls from Perak	Aziz. The Hon. Ungku. A.	LKCNHM Collections (one)	Tweedie (1939: 57)
1939	Crocodile	Small mounted	Mr P. Sammy	Unknown	Chasen (1940: 5)

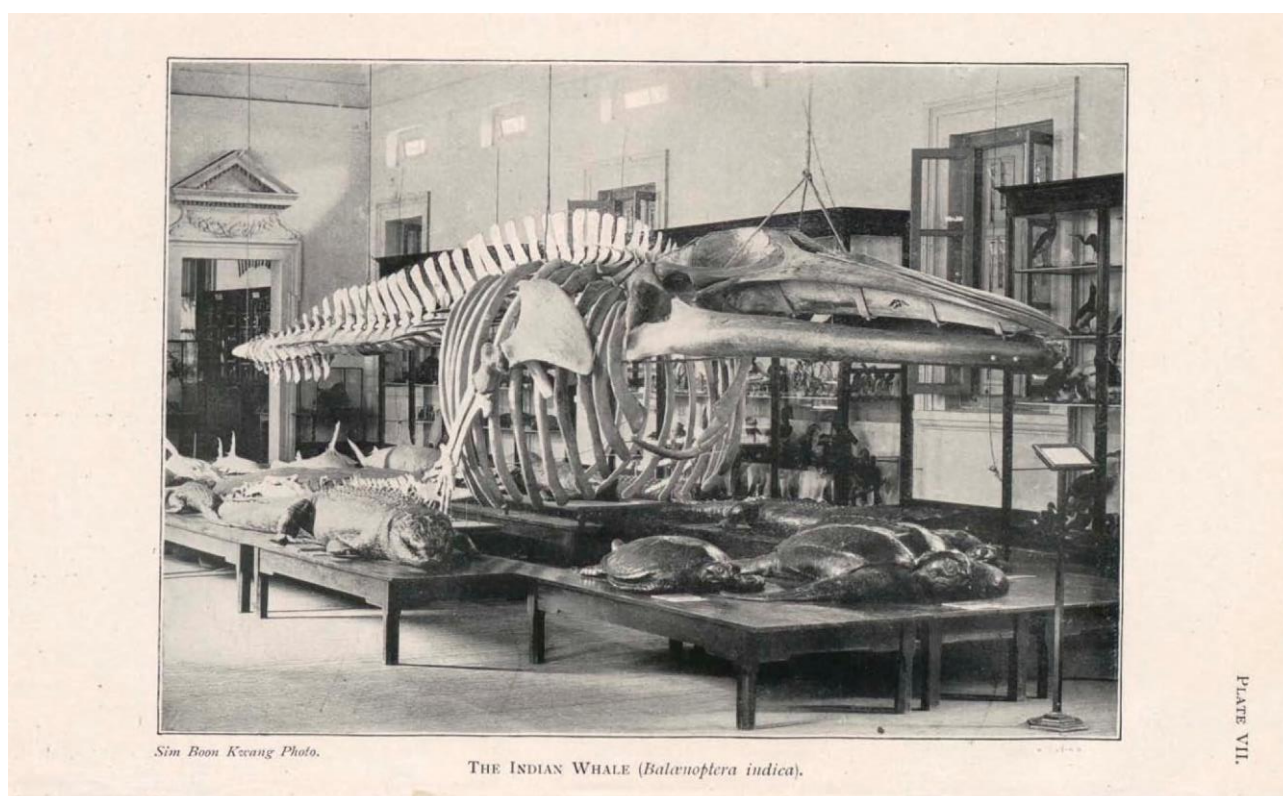


Fig. 12. The reptiles and mammals platform in the Raffles Museum, c. 1900. The crocodile shot in 1887 by G.P. Owen can be seen on the left beside the whale. (Photograph by: Sim Boon Kwang in Hanitsch, 1908: pl. vii).



Fig. 13. 'Edgar', a saltwater crocodile skull from Java, belonging to a specimen of 6.7 metres. (Photograph by: Tan Heok Hui, Dzaki Safaruan, Jeanice Aw, 2020).

Though not from Singapore, two early donations of skulls from the region were recently discovered by Fukuda et al. (2018) to have belonged to two of the world's largest saltwater crocodile specimens. One, now named 'Edgar' (Fig. 13), came from a Java individual with a total length of 6.7 metres, and was presented to the Museum by G. Edgar in 1887. The other, now named 'Giryu', unfortunately lacks provenance, but the total length would have been more than 6 metres based on the skull length of over 700 millimetres (Fukuda et al., 2013).

These specimens provide not only information on the location of species in history, but also anthropological insight into the areas travelled by collectors and hunters alike. While many of the large specimens of crocodiles shot by hunters were stuffed and sent back to the UK, specimens such as 'Edgar' were presented to the Museum. The impact hunters and collectors had on the surrounding environment later became apparent particularly during the eras of government pay-outs.

Specimens recorded as 'presented to the museum' amassed into a collection of skins, skeletons, skulls, eggs and teeth. Many of these are no longer in the collections, possibly due to downsizing when the collections were removed from the Raffles Museum in the 20th century. These specimens were not collected solely as trophies, but also aided science and the understanding of surrounding areas at a time when technology was limited. Presentations to the museum allowed communication between countries on the species of crocodiles residing there and the lengths to which they could grow, such as is the case with 'Edgar' and 'Giryu'. In Singapore, of the 194 crocodiles that were reported as captured and/or killed, measurements were taken from 123, producing an average size of 2.54 metres, with the largest at 6.1 metres and the smallest at 0.3 metres. Sightings, at 186 instances, were not included due to unreliable estimations of length.

Donations and payments appear to have ceased at the beginning of World War II. In the 1930s in Malaysia, an article in *The Straits Times* (1936b: 10) said that "crocodiles have been thinned out very considerably in Malayan rivers, especially since the 1931-33 slump, when they were hunted for the Government bounty by out-of-work Tamils, Chinese and Indians". These initiatives seemed to have ebbed and flowed through the late 1800s and early to mid-1900s, depending on work demand and point of view. Reduced donations and captures may have been a result of growing demand for post-war sustenance (see next section).



Fig. 14. A crocodile "killed in Malaya, April 19 1946". (Photograph: collection of the author).

As the world got back on its feet, commercialisation restarted and crocodiles became widely hunted in the 1960s. Accounts such as 'Hunting Crocodiles' by the Chairman of the Malayan Zoological Society, V.M. Hutson (Hutson, 1960: 127), described how exactly to capture or kill crocodiles, and insisted that "this type of hunting can only be carried on when there is no moon and a low tide".

Hunting of wild crocodiles later ceased when the Arms Offences Act (Original Enactment: Act 61 of 1973) was introduced in Singapore. Up until implementation, most crocodiles were killed by shot (Fig. 14), but after 1972 the only crocodile shootings reported were carried out by authorities, i.e., the police. There were no shootings reported after 1989, the last being at Sungei Seletar Reservoir (now Lower Seletar Reservoir), where the police shot at a crocodile but missed (Miller, 1989b: 23).

SLIDING SCALES: EVOLUTION OF THE SKIN TRADE

While there had been no commercial ‘use’ for crocodiles in the 1800s, the 20th century brought commercial momentum. Singapore has a lengthy history of tanneries, but the processing of crocodile hide as a worked commercial material, as opposed to taxidermy, appeared relatively late. After years of culling crocodiles as ‘pests’, the idea of using them for commercial gain was introduced in 1924, when an article titled ‘Commercial Crocodiles’ (ST, 1924: 2) quoted the Fisheries Enquiry Commissioner David George Stead (1877–1957), who commented, “It seems to me that it should be worth while, where crocodiles are so numerous to set up some form of subsidiary industry as a side-line to the various fisheries that are carried on in the estuaries.”

Stead directed the suggestion above “to the attention of the Government, and to the Department of Fisheries for British Malaya”, not directly at Singapore itself, although he stated later in the article:

... similarly if an industry were established, say, in Singapore, the crocodiles’ skins would be drawn from all the neighbouring islands, as well as Sumatra and Borneo. While creating a valuable industry, great good would result to the natives of the regions mentioned.

Stead proposed using established populations in the wild instead of artificial ones (i.e., breeding farms). In his statement, monetary scales appeared more assured and reasonable than the ad hoc uncertainties of previous incentives:

... with the establishment of some such industry, Government might quite well consider the granting of a small subsidy for every “head” produced, no matter how small. Capitation fees could be paid on a sliding scale ranging from the very smallest—even newly-hatched ones—up to those of large size. In this connection I only suggest a very small fee, not intended as payment for the capture, and not sufficient to cause any “artificial industry” of crocodile killing to be set up to the disadvantage of locally established industries.

Despite Stead’s aim to use wild animals, this “artificial industry” emerged. In the 1930s, private breeding pools were created in the homes of some individuals, such as the Czech sculptor Bohuslav Josef Kočí (1890–1942), who was famous for his marble effigy of Dr Sun Yat Sen at Mount Zijin, China. Kočí moved to Singapore in 1937, and in 1939 had been “experimenting with the breeding of Malayan crocodiles in a small aquarium he has built at Katong” with juvenile crocodiles from Mersing River, Johor, Malaysia. He had intended to later develop a crocodile farm in Malaysia (Melville, 1939: 8), but died trying to escape the Japanese invasion onboard HMS *Giang Bee* on 13 February 1942 (Jiřina Todorovová, pers. comm., 2016).

As the culling and killing of crocodiles advanced towards wipeout, ideas of commercialisation began to take hold from D.G. Stead’s early musings. While hunting was still considered a leisure activity, Lancelot Ambrose Scudamore Jermyn (1886–1962) of the Malayan Educational Service loathed crocodiles and was an advocate, particularly in Peninsular Malaysia, of hunting and finding a use for them. On several occasions he presented at talks for the hunting and commercialising of crocodile hide in both Malaysia and Singapore, proposing a similar viewpoint as D.G. Stead in 1924. His attitude towards crocodiles appeared hateful in most of his articles in both *Malaya Tribune* and *The Straits Times*; in an issue of the *Malaya Tribune* (1929: 13) he responded angrily to a letter by “Marquess”:

The crocodile is a nasty brute and out here there is, quite right, a price upon his head. I think even ‘Marquess’ would cease to talk sentimental twaddle about crocodiles if he had felt, as I have felt, the sharpness of the crocodile’s teeth ... I have shot about 300 crocodiles, and shall continue to shoot them, in spite of their friends.

He finished with a final note for ‘Marquess’: “Has he ever enjoyed the embrace of the python? I think he would find it just a little too affectionate.”

Jermyn’s early contemplations in the late 1920s and 1930s seemed to take root when he recounted, in *The Straits Times* (1936c: 13), “One afternoon, in my early days in Batu Pahat, when I was out on the Senggarang with my Chinese friend, Frank Tan, it dawned on me that in our local crocodile we had the possible basis of a really big industry, for crocodile leather had a high market value”. Jermyn’s initial experiments took quite a turn when he placed a hide in “a weak solution of formic in a Malacca jar” in his bathroom overnight, only to wake gasping; he had unintentionally given himself a “dose of poison-gas”. He experimented on other reptiles: monitor lizards, pythons and hamadryads (cobras), as well as elephant trunks, though he admitted, “my abysmal ignorance of chemistry, however, prevented me from making this further experiment.”

Over time he built up knowledge and worked with contacts and connections to understand the processes, saying, "After ruining about 80 hides, I finally produced good leather" ... "My first efforts at handbag making were dreadful, but even these sold at cost" ... "I thought it would be as well to ask Government if I might carry on. I did not know whether in running this private industry I was badly infringing regulations or committing merely a venial sin. The reply came in the form of an order from the General Adviser, Johore, to make his wife a handbag." Encouraged by the early sales, he began to distribute his 'recipes', and offer instruction to anyone willing to test his idea of a crocodile farm:

I addressed the Ipoh Rotary Club, outlining the possibilities as they appeared to me, and suggesting that planters might experiment with crocodile farming on estates situated near river-mouths, miners in disused lombongs. ... This, it seemed to me then, would both slow down the process of rapid extermination of the estuarine crocodile, *porosus*, and ensure a permanent and fairly regular supply. I had little doubt that increase would be rapid, for I had myself cut out of an eight-foot croc. 70 eggs. The flesh of the crocodiles need not be wasted; there was a good market for it in our big towns and in edible qualities it was equal to venison: the gall-bladders were prized by the Chinese as a remedy for asthma.

The miners were not interested due to their shifting population. Jermyn's friend, Frank Tan, had gleaned some interest from a Danish engineer who had collected 70 crocodiles and had them in cages ready to bring to an enclosure, but was preparing to move to Malacca, so Jermyn purchased them from him and put up an enclosure in the Simpang Kiri Estate. After much trouble and loss of crocodiles due to reluctant labour, the juveniles had escaped to the river and Jermyn was left with only 10 adults. In the meantime, he described vaguely how he had received a "very heartening personal letter from Singapore, which showed me that a certain big man was not only interested but had got out quite a lot of useful information for me from the Imperial Institute"; no further details were given. Jermyn was contacted by several officials interested in his scheme, but through the loss of his crocodiles he was convinced he had failed and said, "By the time, however, I was pretty certain that I had failed, failed through the perversity of *porosus*—or shall we call it a refinement unlooked-for in so savage a creature." His crocodiles refused to breed over the 20 months he kept them, and in *The Straits Times* (1932a: 6) he jokes, "Perhaps they feel some sort of marriage ceremony is required, and desire that I should throw them a priest. Any volunteers?"



Fig. 15. A Cold Storage commercial, 1939, at the onset of World War II. (Image by: Cold Storage in *The Straits Times*, 1939; reproduced with permission).

“Finally, as though to wipe out all trace of the experiment, a huge flood came, reaching the top step of the planter’s bungalow” (ST, 1936c: 13)—and Jermyn was left with one crocodile, George, who was later shipped over to the Regent’s Park zoo in London onboard HMS Cornwall, leaving Singapore on 29 May 1936 (ST, 1936a: 1). This was a particular success, as noted in the *Morning Tribune* (1936: 23), because “there have been several similar attempts by kind-hearted ships’ companies in the past; but hitherto no British warship has succeeded in carrying one alive further than Malta. They have always died from indigestion (due to too good living) or sheer perversion.” During the trip, George was kept in a bath maintained at 80°F, or 26.6°C.

While Jermyn’s practice and recommendations may have worked, and instigated a leaning toward the commercialisation of crocodiles, elsewhere post-war, the presence of wild crocodiles provided sustenance for riverside villages. Such was communicated by Donald Lim, whose grandfather lived at Kangkar Village [港脚 = end of the river; Teochew; presently around the end of Upper Serangoon Road] and captured crocodiles for food. This is undoubtedly not the only case of utilisation for meat, and, consequently, highlights further undocumented presence (and ‘use’) of wild crocodiles.

In 1939, a humorous advertisement for the supermarket Cold Storage (Fig. 15) appeared in *The Straits Times* (1939a) with an extract from an earlier article (ST, 1936b: 10) stating that the College of Medicine, Singapore, had tested crocodile meat and “pronounced it equal to venison”.

Commercialisation advanced through the 1940s, and articles became frequent. *The Straits Times* (1948b: 5) informed readers to “Choose Your Own Crocodile”, in reference to the availability of “baby crocodiles” (and lizards) for shoe manufacturing, which cost as little as \$25 for the crocodile or \$40 for the shoes. A boom in skins occurred in the early 1960s and many small ‘farms’ popped up in Singapore, many of which were housed in backyards.

Awash in history, these anecdotes may seem irrelevant to the presence of crocodiles today, yet this period was to mark the onset of considerable crocodile-related commerce within Singapore as many farms began using locally sourced animals from both Singapore and Malaysia.

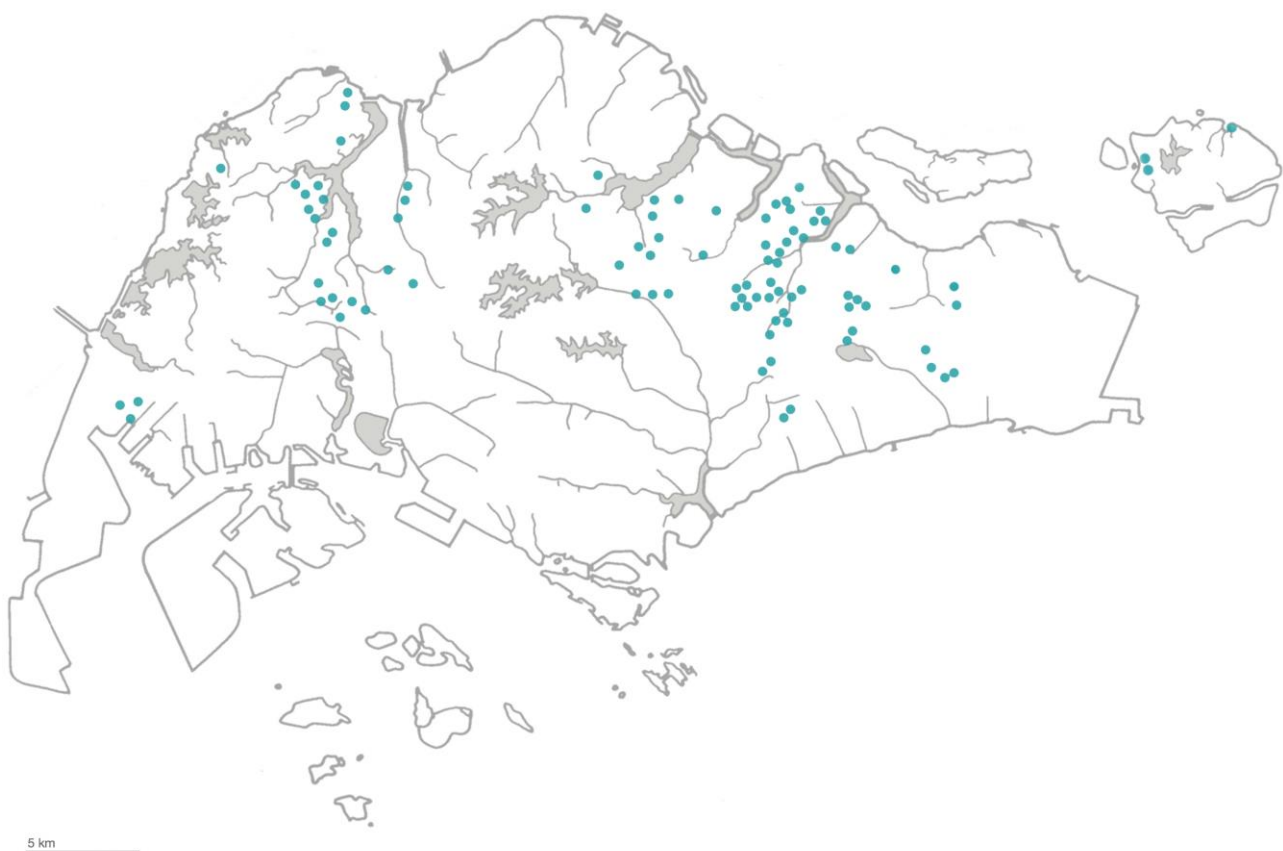


Fig. 16. Map of crocodile holdings in farms in Singapore, c. 1976. Map information adapted from Yeo Lan’s thesis ‘Crocodile Farming in Singapore’ (1977).

Potentially a very successful first-of-its-kind in Singapore was the beginning of a farm in 1945 when ‘Tan Gna Chua’ (Tan Kiam Poh) converted his home into a reptile farm, beginning with 10 crocodiles in his backyard. This small collection of crocodiles soon became an established farm located at Upper Serangoon Road, known as Tan Moh Hong Reptile Skin and Singapore Crocodile Farm (陈茂丰皮业鳄鱼饲养场), which ran for 67 years and closed in 2012.

In 1957, an article titled ‘Colony skin imports are declining’ (ST, 1957b: 12) highlighted the fears of an increase in the price of fresh skins due to “small and irregular supplies”, likely caused by the fact that “many native trappers, in view of the high price of rubber have turned to rubber tapping which seems to them to be more prosperous than trapping reptiles and animals.” Rubber tapping was also unquestionably less dangerous. High value was subsequently placed on crocodile skins, leading to many robberies in the 1960s and 1970s. An armed robbery in 1960 led to the theft of a truck containing 22 cases of crocodile skins valued at S\$107,671 (S\$434,355 as of 2017; ST, 1961). In 1970, 54 live juvenile crocodiles worth S\$3,200 (S\$11,632) were stolen (ST, 1970a), and later that year, crocodile skins worth a total of S\$14,000 (S\$50,891) were stolen in a string of robberies (ST, 1970b).

In the 1970s, the species was found to be in decline in West Malaysia, because their high value meant that crocodiles were being shot on sight (Campbell, 1972). Thefts of live juvenile crocodiles continued relentlessly into the 1980s and 1990s, and in 1993, Jurong Crocodile Paradise was fined \$9,000 for buying stolen crocodiles on three occasions (The New Paper [TNP], 1993).

In 1977, a thesis by Yeo Lan titled ‘Crocodile Farming in Singapore’ gave a rich account of the commercialisation occurring across the island. Yeo documented 92 farms holding crocodiles (Fig. 16); five were solely for crocodile trade, while the remaining 87 held crocodiles but were primarily for poultry, fish and other livestock. Concerning poultry farms, Yeo states:

The reasons are purely economic. Crocodile farming in the Republic is a lucrative sideline for poultry farms because the food for crocodiles is readily available. ... Unhatchable eggs, unhealthy or sick chicks, dead chicks, and male chicks (only some of which are kept for breeding purposes) are available as food for the crocodiles.



Fig. 17. Syed bin Taha, a performer at Jurong Crocodile and Reptile Paradise, in the crocodile pool, 1989. (Photograph reproduced with permission from Syed bin Taha).

Yeo also states that “most farm-holders interviewed have orchid nurseries adjacent to their farms. The waste produced by the crocodiles is used either wholly or partially to fertilize the soil in order to raise vegetables, fruit trees and ornamental plants.”

Jermyn had similarly proposed for crocodile farms to be placed next to piggeries (ST, 1932a), and to save costs by feeding the crocodiles offal. He also, however, appeared to support the idea of rounding up stray dogs to help supply the large quantity of meat required for crocodile feeding (ST, 1932b), though this seems to never have transpired.

An alternative to the crocodile-and-additional-livestock model of other farms, the Jurong Reptile and Crocodile Paradise (c. 1986–2006; Fig. 17) was developed from an older farm in Punggol and fronted by shows where trained performers would wrestle with crocodiles in front of large audiences. The shows could draw up to 800 visitors, who could also see crocodiles in their breeding pools. Other establishments were more focused on the processing of skins; visitors could view the entire process from live animal to finished handbag.

The ‘Paradise’, Asia’s largest reptile park, closed in 2006 and was later turned into a nightclub. While the building still stands, all that remains of the Crocodile Paradise is a power grid sign that reads “Jurong Crocodile Pk” at the back of the building (Fig. 18).



Fig. 18. The Jurong Reptile and Crocodile Paradise today, its only remnant being signage from the power grid. (Photograph by the author).

More farms were established in Singapore and crocodile farming flourished; only when the country joined the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) in November 1986 (CITES, 2017) was the trade eventually governed.

Over time, the normalisation of ‘crocodile ownership’ and backyard breeding pools (Fig. 19) slowly faded, although documentation of ‘privately owned’ crocodiles still appeared fairly recently. A brochure by St Nicholas Girls’ School, published in 1994 (CHI, 1994), mentions how “others visit the science pond, the baby crocodile enclosure...” A

photograph of students with the crocodiles can be found on the St Nicholas Girls' School Alumnae Association's Facebook page (St Nicholas Girls' School Alumnae Association, 2015). The crocodiles were reported at the school in 1989 (TNP, 1989: 4), and later featured by The Straits Times (1992: 20) in an article titled 'Crocs have grown, so it's bye school'. They were relocated to the Crocodilium at East Coast Road.

In the early 2000s, Singapore was described by MacGregor (2006: 16) as "primarily an entrepôt and processor, as well as having one of the world's largest tanneries. As such, the majority of skins imported by Singapore are re-exported to final destinations and/or manufacturing destinations." The industry has sustained itself as a lucrative practice for many decades. Today, crocodile hide continues to command high demand and value, its supply and demand paralleling those of the luxury goods industry. In 2011, Reuters (2011) reported that LVMH Moët Hennessy Louis Vuitton SE (LVMH) had purchased control (51%) of the Heng Long tannery in Singapore, worth 92 million euros. The remaining crocodile farm in operation, Long Kuan Hung Crocodile Farm (农光行鳄鱼场), is located in the Kranji area in the northwest, where Rei (2016) reported at least 13,000 crocodiles.

By-products are also available in Singapore. These include the use, in traditional Chinese medicine, of crocodile oil to treat skin ailments and crocodile meat to treat asthma; usage of gallbladders has also been reported. Yeo (1977: pl. 8) features a photograph of crocodile meat being left to cure in the sun at Temple Street, Chinatown. Such use of crocodiles may stem from far back in the 1800s, when there were several instances of captured crocodiles being bought by the Chinese presumably for their meat, which is still being used in herbal soups today.



Fig. 19. An unidentified crocodile farm in Singapore, c. 1960s. (Photograph: collection of the author).

SALTWATER AND ESTUARY: DISTRIBUTION AND HABITAT

Crocodiles were undoubtedly abundant throughout Singapore before colonial habitation, but not documented until colonial powers settled in the country in 1819. Early maps of the island show widespread mangroves encompassing coastal regions and rivers, estimated by Yee et al. (2010) to have covered 75 km² in 1819. As part of colonial effort to establish agriculture in Singapore, the island was assessed for land suitable for the extensive cultivation of a variety of crops, including pepper, gambier and later, rubber. Subsequently, many older maps provide excellent details of the landscape and early mangrove areas, which are a common habitat for crocodiles.

Details were also included for the small islands to the south of Singapore and indicate that crocodile abundance may have been quite widespread (Fig. 20). On the 1839 ‘Map of the Island of Singapore and its Dependencies’ (National Archives of Singapore, 2017a), there is a Pulau Boyah to the southwest of Singapore. In 1885 it is represented as Pulau Boaia (National Archives of Singapore, 2017b), and ultimately, as Pulau Buaya [= Crocodile Island; Bahasa Melayu] (Fig. 20). Pulau Buaya continues to be mapped until 2010 by the NUS Libraries Historical Maps of Singapore (2020). The island is now within the boundaries that form Jurong Island—a reclaimed conglomeration of smaller islands. Other surrounding islands in the formation were gauged to have had 5.25 km² of mangrove areas destroyed between 1969 and 1983 (Tay et al., 2018). Pulau Buaya’s name and the former presence of mangroves in the surrounding area imply a previous inhabitation of crocodiles.

The second island, Pulau Pawai (Fig. 20), was previously named ‘Alligator Island’ on older maps and initially located seven miles southwest of Singapore, with shifts in distance now owing to reclamation. The Straits Times (1937a: 5) detailed it to have a “thick jungle and mangrove swamp run across the centre of the island” as highlighted on maps (National Archives of Singapore, 2018a). Unlike Pulau Buaya, this island was remarked upon in several newspaper reports due to its larger size, easy access and Malay settlement (ST, 1898c). On Thomson & Congalton’s 1855 ‘Survey Map of the Straits of Singapore’ (National Archives of Singapore, 2018b), it was subheaded with ‘Pulo Rungcum’ [Pulau Rungkam = Silent Island; Bahasa Melayu]. Today, it is used for aerial live-firing by the Ministry of Defence (Reef Ecology Lab, NUS, 2016).

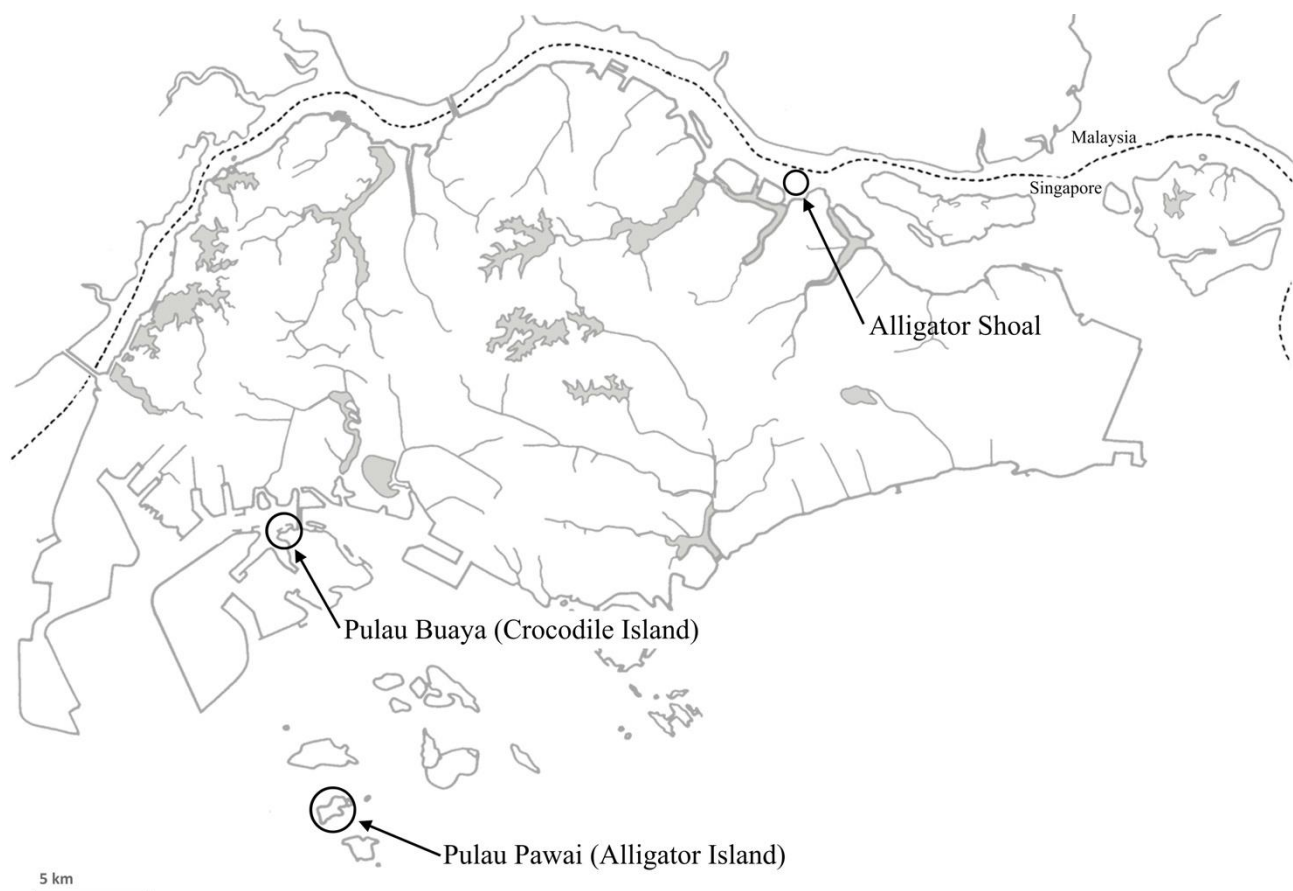


Fig. 20. Locations of cartographic names in Singapore which are suggestive of a crocodile population. Map based on changes from 2010.

An 'Alligator Shoal' (Fig. 20) can also be seen on the 1987 hydrographic chart of the East Johor Strait, in a small area close to Punggol Timor Island (National Archives of Singapore, 2020).

While the presence of animals often aids in distinguishing likely geographies, there are other characteristics such as folklore and legend which may be toponymical. This pertains to other islands in Singapore's territorial waters, such as Pulau Sekudu [= Frog Island; Bahasa Melayu and Hokkien], and Kusu [Island] [= Tortoise Islet; Hokkien].

Early records of crocodiles made between 1819 and 1849 were concentrated heavily in human-inhabited areas such as Tanjong Katong, Tanjong Pagar and the Singapore River (Fig. 21). Those situated outside this sphere were only reported after serious incidents such as the death of estate workers. GIS mapping in semi-centennial time frames (Fig. 21) cannot show the exact 'movement' and full distribution of crocodiles; instead the locations of crocodile encounters are based on the movement of people and development of the island. Though this does not improve understanding of the historical distribution range, it does offer insight, based on the sample areas, into population abundance. It is also possible to identify some of the crocodile's previous haunts that no longer exist, particularly mangrove areas, which have been urbanised over time. Coastal mangrove forests are an ideal habitat for crocodiles, as are adjacent rivers and estuaries. In 1819's Singapore, mangrove forests contributed approximately 13% of the entire forest area (Corlett, 1992), but a mere 6.59 km² remains today. Sungei Buloh Wetland Reserve is the largest of Singapore's surviving mangrove forests, consisting of 1.17 km² or 17.75% of the mangroves (Yee et al., 2010).

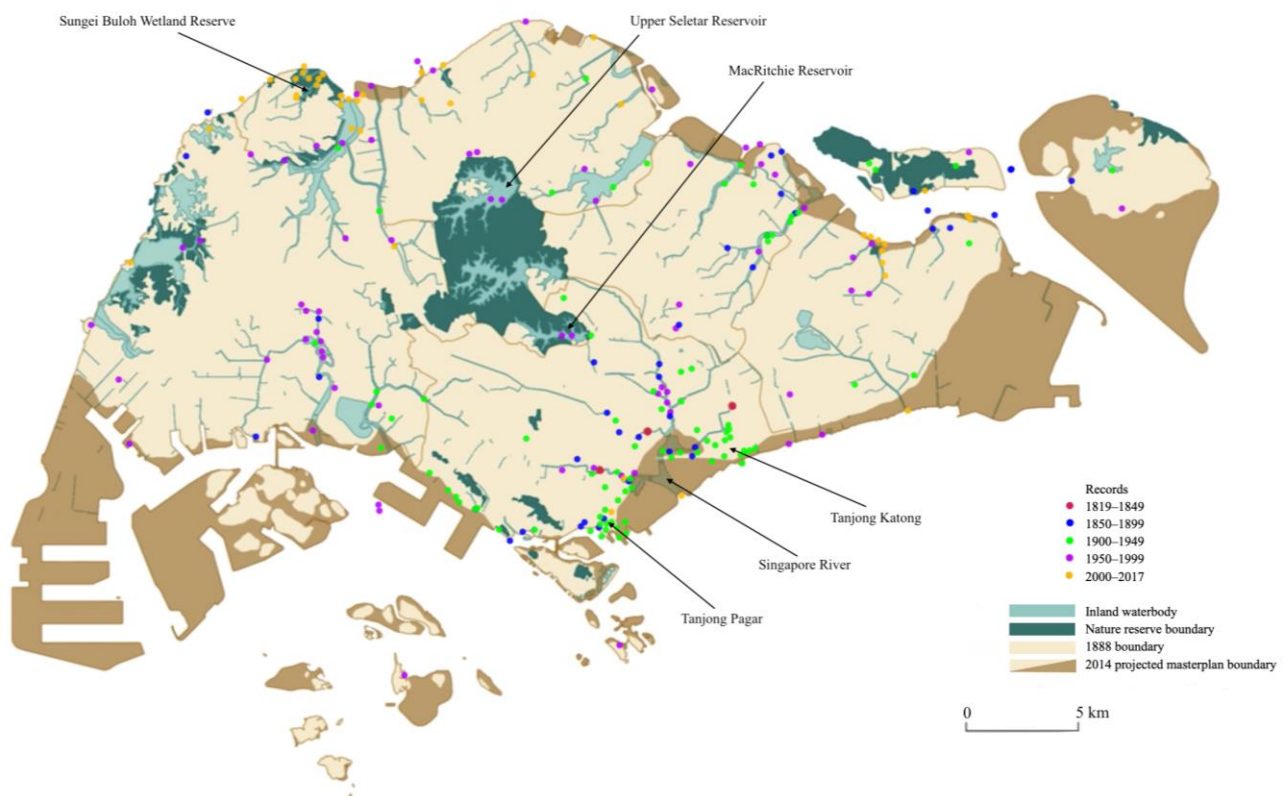


Fig. 21. Recorded locations of crocodiles in Singapore, 1819–2017.

Based on this, the once island-wide habitats preferred by crocodiles have clearly diminished to a small localised area which continues to provide suitable natural habitat. The movements of people since these early records correlate with the crocodile encounters; ever since colonials ventured into the forests and began transforming the land, the likelihood of meeting a crocodile or tiger increased, as did the numbers of records listed in the newspapers. These areas, mostly uninhabited before such transformations, were likely abundant with crocodiles, particularly because the existing records noted here were made within a short timeframe, and by the few people who ventured to assess the land. Incidents were usually sightings, although in Punggol, 1910, a "Government survey mandore" was attacked on the legs, and the crocodile shot with a Browning automatic by a surveyor, Mr Yacob Ali Khan (ST, 1910c: 6).

The few accounts in the early 1800s correspond to areas in close proximity to human habitation. The early 1900s to 1949 saw 112 records, with 70% of occurrences located in areas of the town, including harbours, housing and leisure facilities such as swimming clubs joined to the sea.

The residential areas situated along the seafront of Beach Road often had bathing huts extending out to sea, to which a protective ‘pagar’ [= fence made from wooden stakes; Bahasa Melayu] was later added (ST, 1929). Though the pagar appeared to offer a safe area for bathers, The Straits Times (1934) recorded how a crocodile “leisurely” climbed over the fence, was shot at with a catapult, and climbed back out seemingly unperturbed. There were often sightings and newspaper reports giving warning to bathers. In 1936, the souvenir programme for the official opening of the new clubhouse at the Singapore Swimming Club included a photograph of a crocodile tied to a pole—this was a typical method used to warn of their presence. Today, government bodies have introduced crocodile warning signs, particularly in areas with common or recent sightings (Fig. 22).



Fig. 22. Government warning signs installed at locations of recent crocodile sightings. (Photograph by the author).

In the late 1800s, areas under constant human use and containing denser human populations recorded many more crocodile sightings (Table 6). This was particularly apparent around the harbours and Tanjong Rhu’s shipyards, which flourished in as early as 1882. Tanjong Rhu alone saw 11 of the 99 incidents reported in total between 1878 and 1903. Crocodiles frequenting the harbours were found in the shipyards and even onboard ships. Sailors were frequently advised against bathing from the side of the ship. Early maps such as Elliot’s 1854 hydrographic plan of the Eastern Entrance, Singapore New Harbour (Singapore Maritime Museum, 1854), noted areas as “swampy ground covered with mangroves”, including Pagar Point to Terch Point at Pulau Brani (now Brani island), which would have been prime sites for crocodile habitation. These areas were later developed for shipping lanes and docks.

During construction and heavy use between 1874 and 1923, the harbours saw 20 occurrences. As development into the 1900s became more aggressive, pinnacle moments in Singapore’s reclamation and urbanisation history correlate with spikes in reported numbers of crocodiles, which generally increased within a 2-km radius of reclamation areas in the subsequent two years after works were carried out.

Table 6. An overview of reported crocodile events in Singapore, 1819–2017 (see Appendix for details).

Year range	Sightings	Captures / kills	No. of crocodiles that killed humans	No. of crocodiles that attacked humans	Total no. of crocodiles	Total no. of eggs
1819–1828	0	1	0	0	1	0
1829–1838	0	0	0	0	0	0
1839–1848	1	0	2	0	3	0
1849–1858	1	4	0	3	8	0
1859–1868	0	1	0	0	1	0
1869–1878	4	3	1	1	9	0
1879–1888	3	6	1	0	10	36
1889–1898	6	22	1	4	33	0
1899–1908	11	23	2	5	41	32
1909–1918	6	38	0	3	47	0
1919–1928	11	7	3	2	23	0
1929–1938	9	9	0	0	18	0
1939–1948	2	4	2	2	10	0
1949–1958	16	3	0	4	23	0
1959–1968	9	2	2	1	14	0
1969–1978	17	4	0	1	22	0
1979–1988	10	13	0	0	23	1
1989–1998	27	49	0	1	77	17
1999–2008 ^{*^}	23	8	0	0	31	45
2009–2017 ^{*^}	42	4	0	0	46	30
Total	198	201	14	27	440	161

^{*}Increased numbers for 1999–2017 due to unconfirmed, but suspected, duplicate sightings of individuals. [^]Captures mostly represent relocations or accidental death (see Appendix).

Adaptations to water sources, such as the restructuring of waterways for drainage and trade movement, and the construction of reservoirs to distribute water to the town, significantly disrupted habitats.

Singapore's interconnecting estuaries, mangroves and rivers created a convenient network for crocodiles to move throughout the island. Crocodiles may also have been drawn further inland in search of food, by waste products of farms, and, for females, to lay eggs. Sightings appeared as far inland as what is now MacRitchie Reservoir, previously known as the Impounding Reservoir and Thomson Road Reservoir. This man-made reservoir used to channelled water from the Kallang River where sightings were frequent. Between 1894 and 1906, ongoing works resulted in six sightings of crocodiles in the vicinity. The effects of reclamation continued to be evident until the later part of the 20th century, particularly in the Jurong area in the 1970s. Several sightings occurred in 1972 and 1975; and, later in October 1976, The Straits Times (1976a) reported a crocodile that was pinned down by workers with a 'bulldozer'.

The clearing of mangroves, as emphasised by Yee et al. (2010), left the largest remaining patch of mangrove forest at Sungei Buloh Wetland Reserve. This area was gazetted in as early as 1890 to prohibit exploitation for charcoal and firewood; however, the area was later degazetted for the establishment of prawn ponds. This continued until 1989, when it was designated as Sungei Buloh Nature Park. The park was officially opened in December 1993, then gazetted and renamed Sungei Buloh Wetland Reserve in January 2002.

Since the 1980s, an increase in crocodile presence has been noted, as has the continuous sensationalising of crocodiles. The following was noted in the Malayan Nature Society's (Singapore Branch) quarterly bulletin, 'The Pangolin' (1988: 71):

Estuarine Crocodiles, supposedly thought extinct in Singapore, were being caught in recent years along Kallang River, Sungei Selatar Reservoir and the Pasir Panjang coast by so-called 'crocodile hunters'. Unnecessary jitters and unjustified phobia for these reptiles have been aroused among the public by sensational reporting in the local news media. Those sighted so far are of very humble size, and surely they are in no way comparable in physique nor mystery to the 'Loch Ness Monster'. Once a native to the rivers and waters surrounding our coastline, the crocodiles may be making a comeback from Johore. As long as they are restricted to quiet, secluded waters, such as the Sungei Seletar and Kranji Reservoirs, where swimming are prohibited anyway, these reptiles should be allowed to find their niche.

'The Pangolin' also noted three juvenile crocodiles that were donated to the zoo, and commented that the "baby crocs are believed to be escapees, but the possibility of them being true-blue wild individuals should not be dismissed."

Recent increases in reports of crocodiles in the northwest of Singapore may be the work of hobbyist nature-photography groups and ever-updating social media sites, which have given previously undocumented areas more airtime. In the past, these northwesterly regions were more preserved from human intrusion (providing they were pre-development). Adults and juveniles (Fig. 23) are often visible during low tide on the banks of the Sungei Buloh itself. Many of the individuals are attractive to nature photographers and have become identifiable by their markings. Most infamous is 'Tailless', who is often seen and easily recognised by its 'bobtail'—caused by deformity or juvenile fight—under the main bridge spanning the Sungei Buloh Besar (Fig. 24).



Fig. 23. *Crocodylus porosus* juvenile along a riverbank in the northwest of Singapore, May 2018. (Photograph by: Terri Teo).

Today, as opposed to the capture and culling of the past, conservation efforts by local organisations such as ACRES have played a role in protecting the species. Heng (2016) reported an effort to return a crocodile named 'Diley' to the Sungei Buloh, after it was found stuck in a drain at a Lim Chu Kang fish farm. More recently, sightings have occurred in areas such as Pasir Ris, Woodlands, Changi, Pulau Ubin and the Sailing Club at East Coast.

While the sightings and reports appear to have shown a steady increase in the last decade, it must be noted that many of these sightings are duplicates, which emerged alongside increased public interest in nature. The presence of these crocodile sightings, numbers, juveniles and adults represents the need for a revision of the IUCN's status for crocodiles as being 'regionally extinct' in Singapore. If the 1996 assessment had been made purely from newspaper sources covering the preceding decade, there would have been an overwhelming number of reports to support a very different status. Instances of eggs being discovered, such as the 17 found in the Seletar area in July 1989 (ST, 1989a, via Lim K.K.P., pers. comm., 2015), indicate breeding, as does the presence of juveniles found throughout the later 1980s.

While people may have the notion that crocodiles in Singapore come from Malaysia, the locations of sightings documented over the decade between 1987 and 1996 show that sightings were not limited to the northern shores, but extended to the inland waterbody of MacRitchie Reservoir (Teo & Rajathurai, 1997), and the southern and eastern waterways such as Jurong Lake (Chong, 1992b), West Coast Park (ST, 1987) and East Coast Beach (Lim, 1986). Singapore's southern islands have also seen records; whilst these are rare occurrences also limited by the low human habitation, they do indicate a presence that has most likely gone undocumented, much like in the areas of pre-development in the past.

As time has shown, crocodiles have never disappeared from Singapore. Their habitats have instead been reduced to the small areas of remaining mangroves, where they are safe from urbanisation and somewhat out of sight. They are not extinct, but there is a strong need for an official survey to further develop both their conservation status and our understanding of their presence beside us.



Fig. 24. 'Tailless', the distinctive saltwater crocodile inhabitant of the Sungei Buloh. (Photograph by: Bernard Seah).

CONTEMPLATIONS

Much folklore in the Southeast Asian region is peppered with tales and traditions involving the crocodile. As colonialism, weaponry, economic value, industry and trade of crocodiles developed in Malaya (and therefore Singapore), the species became threatened by habitat destruction, and a price was placed on its head.

In history, *Crocodylus porosus* has faced near extinction in Singapore, but while being classed in 1996 as regionally extinct, there is no evidence that this was, or has ever been, the case. Based on the records detailed in this book, no decade has passed without a reported sighting or event; the species likely maintained itself in the untouched areas of Singapore. Although the presence of *Crocodylus porosus* elicits fear for many, this presence is also promising; as the largest reptilian predator at the top of the food chain, its existence means it has a stable, healthy ecosystem in which to survive.

Access to records is straightforward today; online newspapers and social media platforms enable effective sharing of knowledge, allowing public access to information that was previously little-known. However, this also allows for sensationalisation, whereby fearmongering and negative public opinion may manifest. The steady increase in crocodile reports is perhaps partly due to greater ease of reporting. In the past, information was reported at police stations and to journalists, and those living in areas further from these access points would be less likely to report; in some cases, reports were made based on word-of-mouth rumours.

The local and regional history of the saltwater crocodile is extensive in both scientific and historical reasoning, and, accompanied by human beliefs of fear and reverence, reveals an untold history of the co-existence of human and nature on this island. While developments have leaned towards human convenience, nature has fought to subsist in quiet areas.

The northwestern part of the country is a respite for crocodiles forced from their diminishing habitats in both Singapore and on the parallel shores of Malaysia, across the Causeway and Johor Strait. Sightings of crocodiles under this causeway linking the two countries are frequent, highlighting the ease of movement of this species. The speculation that crocodiles are only now 'coming over to Singapore' can be argued against by the sufficient data that spans 200 years of crocodiles in Singapore. Moreover, *Crocodylus porosus* remains Extant and Native in Malaysia as well as its surrounding islands, many of which are separated only by a narrow and therefore easily crossed body of water similar to the Johor Strait. Geographical proximity should be considered in addition to geopolitical boundaries when assessing for the presence of these large animals.

While no official survey has yet been carried out for the exact figure of crocodiles residing in Singapore, many individuals have been identified by their colouration and markings, and various adults have been frequently (and fondly) named based on the markings on their bodies. In recent years, it has been possible to see juvenile individuals of less than ~40 cm in length on riverbanks in the northwesterly region, indicating successful breeding. In view of its established and continued presence through this history of sightings, captures, reckonings and of course, eggs, there is no evidence to support a status of regional extinction for *Crocodylus porosus* in Singapore, and thus an amendment to the IUCN status is required. In conjunction, more emphasis should be placed on conducting local surveys; the Singapore Red Data Book of 1994 classifies the species as Endangered, while the second edition in 2008 does so as Critically Endangered.

Over the 200 years of encounters, the crocodile was considered 'prey' by colonials, and it endured the intense threats of habitat destruction, commercial development and commodification during the 1930s and 1960s. Despite these challenges, it has continued to resurface.

This book has aimed to provide an overview of the constant presence of crocodiles in Singapore since records began. While it most definitely does not encompass the exact population or abundance of the saltwater crocodile, it is hoped that a basis for a review of the 1996 IUCN status of 'Regionally Extinct' has been established. In time, a survey of the true, current population would warrant the appropriate conservation measures to finally protect the species, after the many historical attempts to eradicate it.

A FINAL WORD

As vessels the vicious cast over the glimmers that shine red under moonlight
He said, "Our knees are like mirrors to the crocodiles"

Torment to the child awash in reflection of heritage
And I wonder now what he has meant.
His conscious stream from a storm to a neap tide.

Reciprocal, the stories untold, all that it lost, some blind removed.
Trauma to a limb, lay the bloated blue to the embankment,
under a stone.

Say it wasn't I, I'll promise you, moon.
And one day the sun will cast on the daughter lost and the daughter found.

Show me something from your ocean and I'll adorn it with a name.
Show me the truth of mortality and I'll cast my hands upon its gibbous form.

Mild delinquent, the elusive transforms to post (of) modern delight.
Of those who did not serve but revel in rebel cause to uncover lies once told.

Would you sail with me, say the crown of '63.
A cunning smile, I saw you fall and I'll watch you fall again.
Until around me free-diving are barnacle bombs, rusted rifles, corrosive cartridge.
Ejected are those kept in a handkerchief crushed, with the pressure blister of blood splatter.

Remember how it was then.
Remember how the ricochet stuck in the house
as a firework leaving a smudge as dark as the days to follow.

Those were the golden hours of dewed green,
and over the swell of the night's constellations,
were consigned with the reality and dis/content of the heart.

Who dared to speak of all the recklessness.
I'll tell you a lie to cross the border.
Pass the memory of time to the wise woman, she'll tell you how to be.

Of all the hatchets and spears, Brens and Remingtons,
tuba root and Smith and Wessons,
forge all your wrongs on my skin and I'll promise you it wasn't me.

I'll take all your metal into my mouth and never let you forget.

From 'Buaya: The Making of a Non-Myth'
Kate Pocklington (2018)

APPENDIX

Appendix 1. List of recorded crocodile incidents, 1819–2017. Location, size and event details are collated from the source. Coordinates were estimated based on a ± 2 -km radius of the reported area and with reference to historical maps. Horizontal borders demarcate different years/time periods. Event: SI, Sighting; CK, Crocodile captured/killed; AH, Attacked human (orange); KH, Killed human (red); RE, Relocated.

Date	Location	Coordinates (± 2 km)	Size details (m)	Event	Event details	Source
1641–1739	Straits of Singapura			SI	“No one came forward, for the Straits of Singapura was infested with man-eating crocodiles, and its waters ran very deep.” Straits of Singapura from this era are now the Straits of Johor.	Muhammad & Robson-McKillop (2010)
1819–1823	Rochore River bank	1°18'22.4"N 103°51'35.9"E	5.50 [3 fathoms]	CK	Dog was eaten. Farquhar has carcass of croc hung from jawi-jawi (fig) tree at Beras Basah river.	Abdullah & Hill (1969)
Mar 1842	Rochore Canal, below the old bridge	1°18'22.6"N 103°51'36.3"E		KH	Seized on the banks of the Rochor Canal, carried off by an Alligator.	SFPMA (1842: 3)
1847	Singapore			SI		Cantor (1847: 16)
20 Nov 1848	Cocoanut plantation at Gaylang	1°18'59.3"N 103°53'38.0"E		KH	Sitting near a creek which extends into the plantation, seized by an alligator which crawled up behind him. Found mutilated in mangrove.	SFPMA (1848: 3)
8 Dec 1849	Powder Magazine	1°17'26.6"N 103°50'27.1"E	3.45 [11 feet 4 inches]	CK	Taken and exhibited in town by captors.	ST (1849: 4)
8 Dec 1849	Singapore River, near the Powder Magazine	1°17'26.6"N 103°50'27.1"E	[Middle size]	CK	Killed by some Klings in the Singapore river.	SFPMA (1850: 1)
1850–1867	Pulo Obin quarry	1°24'09"N 103°58'01"E		AH	Convict & quarry worker. Gouged out crocodile's eyes. Leg was later amputated.	McNair & Bayliss (1899: 130)
21 May 1852	Rochor Canal, near bridge leading to the Race Course	1°18'23.6"N 103°50'55.9"E		AH	Bitten in the back and right side between hip and small of back, escaped.	ST (1852a: 4)
18 Jun 1852	Kallang River	1°19'41.1"N 103°51'52.5"E		AH	Seized. Loss of his foot. Now in hospital.	ST (1852b: 4)
Oct 1852	Stream		3.20 [10.5 feet]	CK	Trapped after tide ebbed. Chinese secured it for reward.	ST (1852c: 4)
1856	Sungei Jurong	1°19'43.9"N 103°43'44.5"E		SI	Noted in GM Dare's diary as being abundant in crocodile.	Davies (1957: 12)
15 Dec 1856	Kallang District	1°18'45.5"N 103°52'08.2"E	[Very large]	CK	Conveyed to the Police office.	ST (1856: 5)

Date	Location	Coordinates (±2 km)	Size details (m)	Event	Event details	Source
Jun 1863	Serangong, tiger pit	1°22'23.4"N 103°54'07.7"E	6.10 [20 feet]	CK	Klings dug a pit to catch tigers. Alligator chased pig, fell in.	ST (1863: 2)
14 May 1870	Serangoon river	1°22'23.4"N 103°54'07.7"E	2.74 [9+ feet]	CK	Caught, taken in bullock cart to Central Police Station for Government Reward (\$5).	ST (1870a: 2)
25 Aug 1870	Pulo Tekong, near Changie	1°23'35.2"N 103°59'55.9"E	2.44 [8 feet]	CK	Brought to the Central Police Station for Government Reward.	ST (1870b: 4)
29 Jul 1871	Sirangoon River	1°22'23.4"N 103°54'07.7"E		AH	Catching prawns, hauling in net, attacked, seized him by the arm. Lacerated from elbow to wrist, taken to Campong Krabow police station, sent to hospital.	Straits Times Overland Journal (1871: 6)
1874	Harbour	1°16'13.8"N 103°50'07.6"E		KH	Carried off one night from a sampan, soon before the mail left. Portion of remains, decomposed and mutilated found. Inquest. Accidental death.	ST (1874: 2)
Apr 1876	Harbour	1°16'05.5"N 103°50'27.9"E	1.83 [6 feet]	SI	Warning to sailors not to bathe from the side of the ship.	Straits Times Overland Journal (1876a: 1)
22 Apr 1876	200 yards from Dalhousie pier	1°17'13.8"N 103°51'09.1"E	1.83 [6 feet]	SI	Engaged a sampan to go to Tg Kg, passed alligator, dived and rose again.	Straits Times Overland Journal (1876b: 5)
3 Dec 1877	Harbour	1°16'05.5"N 103°50'27.9"E		SI	Gambolled around the Colonial steamer Pluto.	Straits Times Overland Journal (1877: 1)
29 Jun 1878	Tanjong Rhoo, 100 yards from shore	1°17'55.0"N 103°52'09.2"E	9.14 [30 feet]	SI	Lazily floating, warning to sailors bathing at the side of ship.	ST (1878: 3)
Jul 1878	Tanjong Rhoo, 100 yards from shore	1°17'55.0"N 103°52'09.2"E	Large	SI	Seen basking.	Straits Times Overland Journal (1878a: 1)
21 Jul 1878	Sunghie Battu Belyhar, 3 fathoms of water	1°15'48.9"N 103°48'19.2"E	3.66 [12 feet]	CK	Shrimp-catching, noose fastened to long bamboo. Now at Central Police Station.	Straits Times Overland Journal (1878b: 6)
2 Jan 1884	Tank beside Seah Leang Seah's villa in Thomson Road	1°20'02.4"N 103°50'19.0"E	2.44 [8 feet]	CK	Thought to have been in the stream flowing from waterworks. Shot by Hon. Seah Leang Seah.	ST (1884a: 2)
Apr 1884	Between Fairy Point and Pulo Obin	1°23'44.3"N 103°58'18.9"E		SI	Seen mid-channel whilst canoeing, signed off as "Brani".	ST (1884b: 3)
Apr 1884	Westward of the Channel off Pulo Sirimbun	1°26'03.2"N 103°41'02.6"E		SI	Many alligators seen all the way through the Straits, signed off as "Brani".	ST (1884b: 3)

Date	Location	Coordinates (±2 km)	Size details (m)	Event	Event details	Source
6 Aug 1884	Canal alongside Campong Java Road, at the back of the cemetery near Thomson Rd bridge	1°18'49.7"N 103°50'40.9"E	1.07 [3 feet 6 inches]	CK	Was this morning captured by a Kling man in the canal alongside Campong Java Road at the back of the cemetery.	Straits Times Weekly Issue (1884: 2)
15–19 Dec 1884	River Valley Road (outside Kim Seng's houses)	1°17'44.1"N 103°49'55.2"E	1.83 [5 or 6 feet]	SI	Crocodile ran into swollen swamp.	SFPMA (1884: 211)
15 Feb 1886	Side of the river in Pongol	1°23'38.6"N 103°55'08.4"E	[Huge]	KH	Malay woman picking clams on the side of the river, seized and carried away. Later identified in stomach by mother.	Straits Times Weekly Issue (1886a: 1)
3 Mar 1886	Pongol	1°24'06.7"N 103°54'47.4"E	3.66 [12 feet]	CK	Known to frequent a pool 200 yards from factory on estate. Set a watch for croc. Holmes with spear, Fraser with rifle. Found asleep on riverbank. Shot through the head and thrust through body. Remains of Malay woman from Pongol found in stomach; identified by her mother.	Straits Times Weekly Issue (1886b: 2)
8 Aug 1886	In low marshy jungle, 300 yards behind Manager's house on Trafalgar Estate, cocoa-nut plantation. Nearest river quarter of a mile away.	1°22'50.4"N 103°53'32.1"E	2.92 [9 feet 7 inches]	CK	1st shot by Thompson disabled her, balls from Peydon, 2nd shot killed her. Under mound were 36 eggs. Klings took it to town for Government reward.	SFPMA (1886: 96)
Sep 1887	Serangoon River	1°23'06.0"N 103°54'28.8"E	4.72 [16 feet]	CK	Victim to a bullet spent by G.P. Owen in Sep 1887. Tide on ebb, 16-footer lay browsing on muddy bank. Pointed pellet picked it behind the shoulder. Another shot made it flounder in the mud, safely noosed, taken to Raffles Museum. Stuffed by L.A. Fernandis. Currently at LKCNHM on display at Biodiversity Gallery.	ST (1908a: 7)
4 Nov 1889	Kuala Johore	1°24'43.2"N 104°00'19.1"E	4.57 [15 feet]	CK	Caught by hook and bait by two Malays. Brought to Marine Station in a sampan to collect reward.	ST (1889: 2)
1890s	Sungei Jurong Road, swamp near a rice mill	1°21'07.7"N 103°43'40.7"E	1.83 [6 feet]	AH, AH	Seized two Chinamen but did not kill them.	SFPMA (1894: 2)
1890s	Beach, Pongol	1°21'07.7"N 103°43'40.7"E		SI	Crocodile ran out of the sea and took woman's dog whilst walking.	SFPMA (1894: 2)

Date	Location	Coordinates (±2 km)	Size details (m)	Event	Event details	Source
16 Feb 1890	Shore at Tanjong Katong	1°18'10.1"N 103°53'59.6"E		SI	Discovered close to bungalow by two Europeans. Not caught.	ST (1890: 2)
24 Apr 1890	Sirangoon	1°22'23.4"N 103°54'07.7"E	3.89 [12 feet 9 inches]	CK	Was caught in Sirangoon last night.	Straits Times Weekly Issue (1890a: 6)
22 Jul 1890	Entrance to Singapore River, moved to beyond Cavanagh Bridge	1°17'11.4"N 103°51'09.5"E	4.57 [15 feet]	CK	Shot by Donald Maw. Thought to be attracted to the water by the scent of a capsized four-oar crew the other evening.	Straits Times Weekly Issue (1890b: 3)
26 Jan 1892	Botanic Gardens Lake	1°18'28.3"N 103°48'57.4"E	1.83 [6 feet]	AH	Crocodile attacked Javanese gardener, bit arms. Lake emptied, beat. Captain Gamble previously owned it. Search underway.	ST (1892: 3)
21 Apr 1892	Creek between Telegraph Co's Works and Bukit Chermin, at New Harbour	1°16'01.1"N 103°48'36.4"E	3.96 [13 feet]	CK	A. Cumming shot a crocodile in the creek.	SFPMA (1892a: 2)
5 Dec 1892	Jungle, unknown		3.66 [12 feet]	CK	G.P. Owen shot crocodile in jungle.	SFPMA (1892b: 2)
2 Jan 1894	Impounding Reservoir, Thomson Road	1°20'37.3"N 103°49'07.3"E	2.41 [7 feet 11 inches]	CK	Bait with duck attempted. Shot several times in previous weeks. Stomach severely lacerated by previous attempts to catch with a nibong. Likely to have died from internal injuries.	SFPMA (1894: 2)
27 Feb 1894	Kallang River; back of Mr Cork's Estate at the 3rd mile, Serangoon	1°20'01.9"N 103°51'53.4"E	2.59 [8.5 feet]	CK	Single shot from Henri Martini, bullet below left eye. Carcass taken to Kandang Kerbau Police Station for report.	Daily Advertiser (1894: 3)
12 Aug 1895	Changhie	1°23'19.7"N 103°58'54.5"E	3.05 [10 feet]	CK	Fisherman brought captured crocodile to Singapore to get reward. No longer any reward.	Mid-day Herald (1895a: 3)
13 Aug 1895	Sea end of the pier at Tanjong Rhu	1°17'52.9"N 103°52'03.4"E	1.22 [4 feet]	CK	Mr Palmer shot crocodile at end of pier.	Mid-day Herald (1895b: 3)
20 Sep 1895	Tanjong Rhu	1°17'52.9"N 103°52'06.7"E	1.83 [6 feet]	CK	Reptile made desperate efforts to escape, damaged net, secured by fisherman and sold to a man at the Slipway for \$2.	Mid-day Herald (1895c: 3)
Nov 1895	Pasir Panjang Road	1°16'32.6"N 103°47'27.5"E	1.22 [4 feet]	CK	Captured by Rikisha. Held at offices of Commercial Union Assurance Co., Robinson Road.	SFPMA (1895: 4)
25 Apr 1896	Pulo Tekong	1°24'25.7"N 104°01'46.3"E	[Huge]	KH	12-year-old boy, son of Bugis woman, carried off by huge crocodile while bathing at river.	ST (1896a: 3)

Date	Location	Coordinates (±2 km)	Size details (m)	Event	Event details	Source
27 May 1896	Mangrove swamp, 8 or 9 miles out on Pongol Road	1°25'03.9"N 103°54'35.8"E	3.05 [10 feet]	CK	Found dead with bullet mark on its neck.	ST (1896b: 2)
22 Jun 1896	Impounding Reservoir, near Municipal Bungalow	1°20'38.8"N 103°49'15.7"E		SI	Sighted by Mr T.S. Thompson and Mr H. Newton, search underway.	SFPMA (1896a: 3)
22 Jun 1896	Reservoir at Thompson Road	1°20'36.2"N 103°50'04.0"E	[Large]	SI	Warning for people with children due to belief that "crocodile would be fond of them".	ST (1896c: 2)
5 Jul 1896	Tanjong Rhu	1°17'52.9"N 103°52'06.7"E	1.37 [4 feet 6 inches]	CK	Caught in fishermen's nets, landed at Tg Rhu.	SFPMA (1896b: 2)
23 Aug 1896	Mouth of small river between Changie and Pasir Ris	1°23'15.9"N 103°58'25.2"E	3.66 [12 feet]	CK	Two Malays, well-known trackers, captured crocodile. Thought to be the one that devoured a Malay lad.	ST (1896d: 2)
27 Aug 1896	Impounding Reservoir, Thomson Road	1°20'38.8"N 103°49'15.7"E		SI	Authority of eye witnesses, there really is an alligator.	SFPMA (1896c: 2)
26 Dec 1896	Muddy creek running past Ice Works at Sirangoon, 3rd milestone	1°18'17.0"N 103°51'24.0"E	2.44 [8 feet]	CK	Was shot on last Saturday afternoon in the muddy creek past the Ice Works at Sirangoon, third milestone.	ST (1896e: 2)
Aug 1897	Harbour, on boat Iphigenia	1°16'07.9"N 103°49'59.0"E	[Small]	SI	Probably entered ship through one of the torpedo tubes.	SFPMA (1897: 1)
22 Aug 1897	Singapore		[3 juveniles]	CK	Deposited at LKCNHM, preserved in ethanol ZRC 2.30–306.	LKCNHM Collections
Jan 1898	Tanjong Kling	1°18'17.5"N 103°42'12.2"E	3.66 [12 feet]	CK	People complaining of loss of fowls, caught in trap.	SFPMA (1898a: 2)
13 Mar 1898	Gaylang River	1°18'01.4"N 103°52'46.2"E	1.83 [6 feet]	CK	Killed with three shots by six Raffles boys.	ST (1898a: 2)
30 May 1898	Tanjong Pagar Wharf "Borneo Wharf"	1°16'18.8"N 103°50'34.5"E	1.96 [6 feet 5 inches]	CK	Shot by Mr Sandow, chief officer of British steamer Nedjed. Floating on surface of water, just behind wharf. Supposedly from swamp in Tg Pagar vicinity.	SFPMA (1898b: 2)
12 Jul 1898	Sungei Gedong	1°25'00.9"N 103°40'30.9"E	[Large]	AH	Hit with hatchet in one eye by Malay man crocodile attacked.	ST (1898b: 2)
9 Nov 1898	Serangoon, not far from Police Station	1°20'58.6"N 103°52'21.1"E	1.65 [5 feet 5 inches]	CK	Lazily basking in the sun on the bank of the river, shot by Master Bertie d'Aranjo.	SFPMA (1898c: 2)
20 Sep 1899	Tanjong Rhu	1°17'51.2"N 103°52'40.7"E	2.43 [8 feet]	CK	Caught in net by fisherman. Very savage, damaged the net, sold carcass for 40 cents.	ST (1899: 2)

Date	Location	Coordinates (±2 km)	Size details (m)	Event	Event details	Source
12 Mar 1900	River at Ulu Sungei Pongol near 7.5 milestone, Bukit Timah Road	1°24'48.1"N 103°53'50.8"E	[Very large]	KH	Dollah, a Malay man, fell into river. Seized by alligator. Disappeared. Body found later minus arm and leg.	ST (1900: 3)
30 Mar 1900	Chan Chu-Kang, Selitar	1°24'08.4"N 103°49'19.6"E		KH	Boy taken out of boat, recovered minus arms. Croc stabbed before letting go.	SFPMA (1900: 2)
16 Jan 1901	Source of Singapore River	1°17'16.1"N 103°51'12.0"E	[Young]	CK	Yesterday afternoon a young croc was shot near source of river.	ST (1901a: 2)
6 Apr 1901	Tanjong Rhu, near entrance to lagoon	1°17'54.6"N 103°51'58.4"E	3.66 [12 feet]	SI	Gentleman saw alligator making for the shore. 30 or 40 yards from boat works at the Point.	ST (1901b: 2)
25 Nov 1901	Tanjong Rhu, few yards from shore	1°17'46.0"N 103°52'10.2"E	1.27 [4 feet 2 inches]	CK	Chinese fisherman caught crocodile in a net.	ST (1901c: 2)
25 Mar 1902	Tanjong Rhu	1°17'51.2"N 103°52'40.7"E	[Young]	CK	Chinese fisherman caught crocodile in net, tied to pole, taken to police station.	ST (1902: 4)
25 Jan 1903	Tanjong Rhu, between Club House and first bungalow	1°17'53.1"N 103°52'04.3"E	2.34 [7 feet 8 inches]	CK	Fishermen caught crocodile in a net. Secured on beach; escaped.	ST (1903a: 4)
30 May 1903	Under godown at Tanjong Pagar	1°16'30.1"N 103°50'34.3"E		SI	Captain Molyneux, Tanjong Pagar Dock Police fired shots, alligator got away.	ST (1903b: 5)
19 Aug 1903	Tanjong Rhu	1°17'51.2"N 103°52'40.7"E	[Huge]	CK	Alligator entangled in net of Chinese fishermen. Secured to poles. Intending to sell to compensate for net.	SFPMA (1903: 2)
19 Aug 1903	Tanjong Katong, Swimming Club	1°17'50.0"N 103°52'52.4"E	[Large]	CK	Captured by Chinese fishermen.	ST (1903c: 4)
4 Jan 1904	Swamp near 6th milestone, Thompson Road	1°21'36.1"N 103°49'35.6"E		AH	Kling man was bathing, had leg chewed.	ST (1904a: 4)
Feb 1904	Kampong Java Road		[Small]	CK	"Deluded into the belief that the flood was a real river". Shot by a Eurasian.	SFPMA (1904: 70)
1 Feb 1904	Entrance to Tanglin Barracks	1°18'11.6"N 103°48'41.6"E	0.46 [18 inches]	CK	Caught by F.F. Nonis. Thought to have washed out of the lake at the Botanical Gardens during heavy rains.	ST (1904b: 5)
31 May 1904	Kranji River to Bukit Timah	1°23'45.5"N 103°45'08.3"E	6.10 [20 feet]	CK	200 yards, two shots fired from Winchester Rifle .50-110 and a sporting .303, the saurian took the bullets like a Scotsman taking porridge.	ST (1904c: 5)
22 Oct 1904	Pasir Panjang beach, 50 yards from beach	1°16'35.2"N 103°47'28.6"E	3.05 [10 feet]	SI	Swam within 3 yards of two European men swimming.	ST (1904d: 5)

Date	Location	Coordinates (±2 km)	Size details (m)	Event	Event details	Source
12 May 1906	Diving stage, Swimming Club	1°17'51.0"N 103°52'49.8"E	[Consider- able size]	SI	Crocodile shot at by Mr Hockwell of St Andrews House, disappeared. Seen again close to Club.	EDM (1906a: 2)
Aug 1906	Tanjong Pagar	1°15'59.7"N 103°50'41.9"E	[Small]	CK	Shot by Mr C. Habekost.	ST (1906a: 5)
1 Oct 1906	Hulks at Tanjong Pagar	1°15'54.9"N 103°50'31.5"E	1.83 [6 feet]	AH	Malay fisherman, relative of Captin Ahmat of Sea Belle, had legs attacked in 3 feet of water at low tide.	ST (1906b: 5)
26 Oct 1906	Thompson Road Stream	1°20'44.7"N 103°50'15.4"E	[Young]	AH	Attacked legs of Chinese frog-catcher.	SFPMA (1906a: 6)
10 Nov 1906	Jungle (unknown)		2.92 [9 feet 7 inches]	CK	Shooting party inc. Mr A. de'Aranjo, shot two alligators. One brought to town on Sunday night, disposed of to Chinaman for \$15.	EDM (1906b: 2)
22 Nov 1906	Middle Road, from Rochore Canal	1°18'01.9"N 103°51'18.0"E	[Young]	SI	Seen by two Malays, snapped viciously.	SFPMA (1906b: 12)
1 Dec 1906	Little beyond beach near Pasir Panjang	1°16'49.3"N 103°46'58.3"E	[Large]	SI	Sighting.	ST (1906d: 7)
9 Dec 1906	Tanjong Pagar Wharf (east) pier	1°16'11.1"N 103°51'04.2"E		SI	Sighting yesterday by old Singaporean, crocodile was fighting/playing.	ST (1906d: 7)
13 Dec 1906	Harbour, Master Attendant's pier	1°17'02.3"N 103°51'13.3"E	4.27 [14 feet]	SI	Sighting. Supposedly swam down from Serangoon River and off towards Tanjong Katong, seen by Dr Brooke, Port Health Officer and Captain Edwards, Senior Boarding Officer.	ST (1906c: 7)
15 Dec 1906	Tanjong Pagar	1°16'11.8"N 103°50'53.1"E	3.05 [10 feet]	CK	Officers of a steamer shot a crocodile.	ST (1906e: 6)
15 Dec 1906	Tanjong Pagar Wharf	1°16'12.3"N 103°50'30.0"E	2.900 [9.25 feet]	CK	Shot on Saturday by Chief Officer of S.S. Thongwa.	EDM (1906c: 2)
14 Mar 1907	Serangoon River, Serangoon district	1°22'59.8"N 103°54'30.3"E	3.66 [12 feet]	CK	Brought to town.	ST (1907a: 6)
4 Apr 1907	Under wharves at Tanjong Pagar	1°16'12.3"N 103°50'30.0"E	[Large]	AH	Sikh constable attacked; portion of trousers and "nether garments" taken by crocodile. Sighted again on Tuesday night by a Lance Corporal.	EDM (1907a: 2)
9 Aug 1907	Serangoon	1°23'32.9"N 103°55'05.9"E	[Young]	CK	Captured by fisherman, the young saurian had captured a duck.	EDM (1907b: 2)
11 Aug 1907	Pongol River	1°24'20.1"N 103°53'26.7"E	3.66 [12 feet]	CK	Killed by Warder Walley, taken to AFA Pestana's house at Middle road. To be stuffed and sent to England. Four licenses from dogs found in stomach, plus brass hook.	ST (1907b: 7)

Date	Location	Coordinates (±2 km)	Size details (m)	Event	Event details	Source
28 Aug 1907	Small lake in the plantation at McPherson Road, of Lim Wee Fong, manager of the Kwong Yik Bank	1°19'49.2"N 103°52'25.5"E	[Weighing 31 cattles]	CK	Presumably killed, Lim Wee Fong intended to present it to Raffles Museum.	ST (1907c: 6)
1 Sep 1907	Serangoon River	1°23'39.3"N 103°55'11.8"E		AH	Attacked a Malay fisherman who was washing his fishing nets. Reported by Sergeant Mann (of Sepoy Lines station).	SFPMA (1907: 4)
19 Apr 1908	Seletar	1°24'16.1"N 103°50'44.5"E	2.44 [8 feet]	CK	Crocodile shot by Mr F.G. Penny, 32 eggs bagged.	SFPMA (1908a: 8)
26 Jun 1908	Tanjong Pagar Docks	1°15'51.7"N 103°50'55.6"E	3.05 [10 feet]	CK	Found after draining the dock.	ST (1908b: 7)
27 Jun 1908	Tanjong Pagar	1°16'10.8"N 103°50'37.7"E	[Small]	CK	A small crocodile was caught.	SFPMA (1908b: 4)
5 Aug 1908	In river close to Adamson, Gilfilan and Co's godown.	1°16'57.9"N 103°51'08.1"E		SI	Seen in river.	SFPMA (1908d: 4)
6 Aug 1908	Singapore River, Pulau Saigon	1°17'22.7"N 103°50'17.7"E	3.96 [13 feet]	CK	Shot by Chinese towkay.	SFPMA (1908c: 4)
6 Aug 1908	Opposite Bintang Oil Mills, Robertson Quay	1°18'23.2"N 103°50'54.7"E	4.88 [16 feet]	CK	Shot and killed by Chinese storekeeper, lying high and dry on Robertson Quay.	SFPMA (1908d: 4)
25 Oct 1908	Off Pasir Panjang	1°16'42.7"N 103°47'05.5"E	3.05 [10 feet]	CK	Crocodile shot at by Mr G.D. Neubronner in a koleh.	ST (1908c: 8)
10 Nov 1908	Katong, near the Swimming Club	1°17'57.2"N 103°54'02.6"E		SI	Very fine specimen of a crocodile spending a short holiday at Katong at present. Seen at Swimming Club. Healthy in prime of life.	SFPMA (1908e: 5)
17 Jan 1909	Off Tanjong Katong	1°17'53.6"N 103°53'53.9"E	0.91 [3 feet]	CK	Captured by Chinese fishermen.	ST (1909a: 6)
27 Feb 1909	Katong, close to harbour limit mark	1°17'54.2"N 103°53'56.3"E	2.74 [9 feet]	CK	Caught in Chinese fisherman's net. Sold, to be stuffed.	ST (1909b: 6)
25 May 1909	Tanjong Katong	1°17'53.7"N 103°53'58.1"E	[Fair sized]	CK	Caught by Chinese fishermen.	ST (1909c: 6)
28 Jun 1909	Mouth of Kallang River	1°18'19.6"N 103°52'05.6"E		AH	Chinaman Ho Keng was attacked when bathing.	ST (1909d: 7)
21 Aug 1909	Victoria Dry Dock	1°15'59.8"N 103°51'06.3"E		CK	Found and captured when water was drained.	ST (1909e: 6)
30 Sep 1909	Tanjong Pagar, dock-basin	1°16'20.1"N 103°50'28.6"E	4.57 [15 feet]	SI	Timber coolies removing Oregon logs floating in basin next to construction of wet-dock. Swam into channel and disappeared.	SFPMA (1909: 8)
31 Oct 1909	Off Tanjong Rhu, near Mr Y. Tan's bathing shed	1°17'50.0"N 103°52'22.4"E	2.44 [8 feet]	CK	Caught by Chinese fisherman. To be stuffed.	ST (1909f: 6)

Date	Location	Coordinates (±2 km)	Size details (m)	Event	Event details	Source
20 Feb 1910	Tanjong Pagar Wharf	1°16'03.1"N 103°50'35.7"E	1.22 [4 feet]	CK	Near stern of steamer Chiangmai.	ST (1910a: 6)
Apr 1910	Bali (Balai [Quarry, Ubin])	1°24'47"N 103°58'59"E		AH	Chinese wood loader, loading logs into tongkang at Bali, bitten on the legs. Severe wounds, at Tan Tock Seng hospital for treatment.	SFPMA (1910b: 5)
31 Jul 1910	Kallang River	1°18'28.1"N 103°52'10.5"E	2.13 [7 feet 8 inches]	CK	Caught by Chinese Fishermen, taken to Outram Road police station. Shot by Inspector Oxley.	ST (1910b: 6)
12 Aug 1910	9 ¾ mile, Ponggol	1°24'19.5"N 103°54'09.0"E	3.66 [12 feet]	AH, CK	Taken to survey office. Attacked Government survey mandore's leg. Shot by surveyor of party Mr Yacob Ali Khan with 7 shots of Browning automatic.	ST (1910c: 6)
18 Oct 1910	Near Slipway at Tanjong Rhu	1°17'52.2"N 103°52'01.6"E	6.10 [20 feet]	SI	Sighting by Captain Consigliere of Messrs Gaggino and Co.	SFPMA (1910c: 4)
16 Jan 1911	Bank of Serangoon River	1°23'06.6"N 103°54'34.7"E	4.54 [14 feet 9 inches; 4 feet 6 inches girth]	CK	Shot by Mr D.C. Cook, been skinned.	ST (1911a: 6)
18 Feb 1911	Tanjong Pagar Wharf	1°16'02.5"N 103°50'49.7"E	2.13 [7 feet]	CK	Shot by coal clerk.	ST (1911b: 8)
3 Sep 1911	Serangoon River	1°23'23.3"N 103°55'00.6"E	4.88 [16 feet]	CK	Shot by Mr Palmer; on being cut open, carcase of pig and dog with 1899 license on collar found inside.	SFPMA (1911: 4)
1 Oct 1911	Pulau Obin, Sir John Jackson's quarry, 200 yards from shore	1°24'46.8"N 103°56'56.5"E	4.57 [15 feet]	CK	About to attack Italian quarryman Fontana whilst bathing and swimming to Pulau Ketam. Mr King of Messrs Coode, Son and Matthews shot it.	ST (1911c: 6)
8 Nov 1911	Entrance of Tanjong Pagar lagoon dock. Nullah adjoining wet dock.	1°16'11.9"N 103°50'46.5"E	2.26 [7 feet 4 inches and 27 inches girth]	CK	Mr Elly shot crocodile, to be stuffed.	ST (1911d: 8)
5 Mar 1912	Tanjong Katong, Mr Meyer's pier and Mr Steele's bungalow	1°17'48.3"N 103°53'27.0"E	4.57 [15 feet]	SI	Fifteen-foot crocodile seen near Mr Steele's bungalow. Long time close in shore.	SFPMA (1912a: 6)
10 Mar 1912	Seabeach opposite old Fort near Swimming Club, Katong. Disappeared into the moat of the fort.	1°17'56.1"N 103°54'05.6"E	1.10 [3 feet 6 inches]	SI	Came across a baby crocodile basking on a sandbank. Disappeared in moat of fort. Must be a lair in vicinity.	ST (1912: 8)
25 Apr 1912	Swimming Club	1°17'58.7"N 103°54'03.4"E	[Large]	SI	Seen swimming past diving stage.	SFPMA (1912b: 12)

Date	Location	Coordinates (±2 km)	Size details (m)	Event	Event details	Source
8 Jan 1913	Sea off Tanjong Katong	1°17'50.8"N 103°53'57.5"E	1.52 [5 feet]	CK	Shot in sea off Tanjong Katong.	SFPMA (1913: 6)
19 Nov 1913	Rochore Canal, near Kandang Kerbau Police Station	1°18'37.1"N 103°50'47.5"E	2.44 [8 feet]	SI	Seen near Kandang Kerbau police station.	ST (1913: 8)
9 Mar 1914	Godown 15, Tanjong Pagar Wharf	1°15'56.1"N 103°51'03.8"E	1.83 [Over 6 feet]	CK	Shot by Mr Elly, carcase found later.	ST (1914: 8)
27 Apr 1914	Keppel Harbour	1°16'02.5"N 103°48'55.3"E	[Gigantic]	SI	Seen close to shore.	SFPMA (1914: 6)
4 Feb 1916	Sungei Kechil, Serangoon Road	1°19'17.5"N 103°51'45.8"E	4.42 [14 ½ feet]	CK	Shot by European gentlemen.	ST (1916a: 8)
27 Aug 1916	Far side of Pulau Obin, dirty water pool	1°24'41.9"N 103°57'06.1"E	3.66 [18 × 18 inches; 12 feet]	CK	Adult shot by Mr Donald Maw. 18 hatchlings found, Mr E.S. Nathan took them to his house.	ST (1916b: 9)
Sep 1916	Messrs Sir John Jackson's, Robinson Road	1°16'44.7"N 103°50'54.4"E	1.83 [6 feet]	CK	Bagged at Messrs Sir John Jackson's premises, Robinson Road.	SFPMA (1916: 12)
6 Sep 1916	Side of Grove Road	1°18'08.3"N 103°53'04.7"E	2.44 [8 feet long]	CK	Shot on the side of Grove Road.	ST (1916c: 6)
6 Sep 1916	Tanjong Katong	1°17'52.4"N 103°53'52.3"E	2.77 [9 feet 10 inches]	CK	Shot by Captain Bredenburg of the cable steamer Recorder.	SFPMA (1916: 12)
Nov 1918	Serangoon River	1°23'06.0"N 103°54'28.8"E	4.75 [15 feet 6 inches]	CK	Shot by Lt L.G.M. Hayes, F.T. Ephraums and F.V. Boswell. To be stuffed at taxidermist shop on Orchard road.	SFPMA (1918: 309)
3 Nov 1919	Mr Lim Koh Eng's bungalow, 6 ¾ mile, Pasir Panjang	1°17'21.9"N 103°46'23.7"E	3.96 [13 feet]	CK	Caught by coolies, to be stuffed.	ST (1919: 6)
31 Mar 1920	Tanjong Katong; past old Military Pier towards Sea View Hotel, past beacon to Harbour Limit towards Sea View Pier	1°17'40.1"N 103°53'50.5"E	3.66 [12 feet]	CK	Seen swimming past the old Military Pier towards Sea View Hotel. Past beacon at Harbour Limit and towards Sea View Pier. Dr Falshaw waited at Sea View Pier and shot it.	ST (1920: 9)
6 May 1920	Ulu Pandan River, mangrove swamps	1°19'22.7"N 103°45'07.8"E		KH	Woodcutter, Tuan Liang Seng of 8th Mile West Coast Road, missing; sampan discovered overturned in the stream, surrounded by crocodiles.	SFPMA (1920: 12)
16 Apr 1922	40 yards from shore passing bungalow of Messrs Chapman and Williams at Pasir Panjang	1°16'59.6"N 103°46'49.2"E		SI	Warning given in advance by Malays in kampong nearby.	ST (1922a: 8)

Date	Location	Coordinates (±2 km)	Size details (m)	Event	Event details	Source
18 Jul 1922	Pasir Panjang, not far from Labrador Villa	1°16'04.0"N 103°48'04.1"E	[Large]	SI	Seen near Pasir Panjang shore, not far from Labrador Villa, bathers to take note.	ST (1922b: 8)
Aug 1923	Katong	1°17'58.8"N 103°54'11.0"E	[Baby]	CK	Fished out by boy.	ST (1923a: 9)
9 Sep 1923	Harbour and breakwater	1°15'59.1"N 103°50'13.7"E		CK	Apparently taken two dogs off the breakwater. Supposedly from St John's Island.	ST (1923b: 9)
30 Oct 1923	Kranji River	1°25'13.3"N 103°44'10.8"E	3.66 [12 feet]	CK	Shot by Messrs Tan Hock Lee, Boey Kok Weng, Wee Gin Twee. To be stuffed at Taxidermist Co., Tank Road.	ST (1923c: 8)
Jan 1925	Serangoon Swamp (near Lavender Street). Intersected with swamps and creeks connecting to Serangoon River.	1°18'57.6"N 103°51'55.2"E	[5 crocodiles: 2 large, 3 small]	CK	Baby about 4 feet long speared and captured by European employee of the municipality, saw vet and is living in pond.	ST (1925: 9)
Oct 1925	Tanjong Katong, boat in vicinity of Sea View Hotel	1°17'38.4"N 103°53'50.2"E	[Large sized]	SI	Seen by European resident near kalong.	SFP (1925: 8)
12 Nov 1925	Garden Club, Katong	1°17'55.6"N 103°54'00.4"E		SI	Seen by Aw Boon Haw.	Aw (1925: 10)
3 Aug 1926	Swamps, 9th mile West Coast Road	1°18'42.9"N 103°45'26.9"E	3.66 [12 feet]	AH, CK	Chinese youth pulled away, legs and feet badly mauled. Crocodile killed.	SFPMA (1926: 9)
Jun 1928	14th mile, East Coast	1°22'56.1"N 103°59'19.2"E	[Large]	KH	Chinese fisherman killed.	ST (1928b: 8)
Aug 1928	Mouth of Telok Mata Ikan, Changi Coast	1°19'43.4"N 103°58'00.2"E	[1 crocodile]	KH	Coral gatherer killed while on reef.	ST (1928c: 8)
Aug 1928	Mouth of Telok Mata Ikan, Changi Coast	1°19'43.4"N 103°58'00.2"E	[3 crocodiles]	SI	Three crocodiles seen off the mouth of a stream running into sea at Telok Mata Ikan, Changi coast.	ST (1928c: 8)
13 Aug 1928	Siglap	1°19'30.4"N 103°56'36.7"E		AH	Young Chinese boy was bitten whilst bathing.	ST (1928c: 8)
24 Feb 1929	Chinese Swimming Club	1°17'58.8"N 103°54'11.0"E	[Small]	CK	Caught at low tide.	ST (1929: 11)
22 May 1930	Bathing pagar at Sea View Hotel	1°17'49.7"N 103°53'48.5"E	1.22 [4 feet]	CK	Marine Police shot it at 4 pm.	ST (1930: 14)
27 May 1930	Bathing pagar, Sea View Hotel	1°17'49.7"N 103°53'48.5"E	1.37 [4 ½ feet]	CK	Inspector Pearson of Marine Division shot crocodile.	SFPMA (1930a: 345)
29 Sep 1930	Mr Nathan's house, Tanjong Katong, near Beach House	1°17'55.2"N 103°54'03.7"E	1.52 [5 feet long]	SI	Seen by Mr Nathan and a number of Chinese and others, trying to enter the bathing pagar.	SFPMA (1930b: 10)

Date	Location	Coordinates (±2 km)	Size details (m)	Event	Event details	Source
1932–1936	Kallang Basin—pool adjoined to Goodman Estate, off Mountbatten Road	1°18'24.7"N 103°52'48.7"E	3.05 [3 crocodiles over 10 feet]	SI	Three of these reptiles over 10 feet long were found in a pool; mysterious disappearances of ducks and dogs.	Tordy (1957: 2)
18 Feb 1934	Swimming pagar at Katong Park	1°17'46.8"N 103°53'10.1"E	0.91 [3 feet]	SI	Within pagar, climbed out, swam out 40 yards to sea, came back and climbed in pagar.	ST (1934: 12)
3 Apr 1935	Seletar	1°24'48.5"N 103°51'37.3"E	3.05 [10 feet]	CK	Shot by Mr A.J. Braga and Inspector Isaacs; hauled to firmer ground afterwards.	ST (1935a: 11)
Nov 1935	McPherson Road	1°19'55.1"N 103°52'38.8"E		CK	Boey Peng Kow shot at crocodile, bullet ricocheted and hit house.	ST (1935b: 12)
Nov 1936	Geylang Swamp, Grove Estate	1°18'19.8"N 103°53'28.9"E	3.05 [10 feet]	SI	Suspected to have swam down Sungei Whampoa into the Geylang River near the new civil airfield.	ST (1936d: 3)
Dec 1936	Bund near Arthur Road	1°18'05.7"N 103°53'16.9"E	3.05 [10 feet]	SI	Eating local dogs.	ST (1936d: 3)
Dec 1936	Swamp near Wilkinson Road	1°18'11.1"N 103°53'29.5"E		SI	A crocodile had been seen in the swamp near Wilkinson Road.	ST (1936e: 3)
Apr 1937	Katong; lake near the intersection of Crescent Road and Goodman Road	1°18'19.8"N 103°53'32.2"E	1.83 [6 feet]	SI	Seen from edge of lake by two Europeans, on small island 20 feet from edge.	SFPMA (1937: 6)
27 Oct 1937	Drain crossing Crescent Road, between Goodman Road and Branksome Road	1°18'15.4"N 103°53'35.0"E	2.44 [8 feet]	CK	Witnessed by Mr P. Lange, Mr Buchanan of 40 Goodman Road, and Mr J. Moellman, C.B. Hansen and E.G. Mortensen of the East Asiatic Company “mess” nearby. Caught by Malays. Not far from lake in the Grove Estate. Now with taxidermist.	ST (1937b: 12)
11 Nov 1937	Singapore River, near Coleman Bridge, Hill Street	1°17'24.3"N 103°50'52.1"E	1.52 [just under 5 feet]	CK	Captured by Lance Corporal Isnin bin Mahdan “brani” “Bring ‘em back alive Isnin”	ST (1937c: 12)
1938	Sewage works at Park Road	1°17'04.1"N 103°50'35.5"E	[Small]	CK	Not long ago a small alligator had been caught.	SFPMA (1938a: 9)
3 Jul 1938	“Island” in Katong Lake, Grove Estate	1°18'21.8"N 103°53'33.9"E	1.98 [6 feet 5 inches]	CK	Seven shots. Policeman with Mr Brown having skin mounted (garden of Municipal Commissioner E.A. Brown’s bungalow).	SFPMA (1938b: 2)
Apr 1939	Bukit Sembawang Estate adjacent to naval and air base	1°26'50.3"N 103°50'06.8"E		CK	Estate coolies of Bukit Sembawang Estate; mother caught. Opened, eggs removed.	ST (1939b: 10)

Date	Location	Coordinates (±2 km)	Size details (m)	Event	Event details	Source
1941	Pond at the end of Crescent Road, Katong	1°18'33.5"N 103°53'33.8"E	1.22 [4 feet]	SI	Haji Changkol bin Haji Rumpat, gardener saw crocodile; apparently still in pond.	ST (1948c: 2)
1941	Pond at the end of Crescent Road, Katong	1°18'33.5"N 103°53'33.8"E		CK	Shot by resident in the area just before Japanese attack on Singapore.	ST (1948c: 2)
1946	Pasir Panjang beach	1°16'32.5"N 103°47'32.7"E		KH	Rumour from newspaper article of attack, 10 Sep 1949: fisherman was taken away.	ST (1949b: 7)
23 Oct 1946	Ulu Pandan River, Jurong, ¼ mile from river	1°19'11.4"N 103°46'14.3"E		KH	Child playing near creek was seized by crocodile.	ST (1946: 5)
7 Jan 1947	Thomson Road, crossing road in vicinity of MacRitchie Reservoir	1°20'29.4"N 103°50'07.7"E	2.44 [8 feet; weighed more than 1 picul]	CK	Nee Soon Police; six shots with .38 revolver stunned it, .303 rifle killed it. Now with taxidermist.	SFP (1947: 1)
Mar 1948	Pandan Road, Pasir Panjang	1°17'59.5"N 103°45'11.8"E	2.13 [7 feet]	AH, CK	Crocodile shot by Mr Lim Chuan Kin, Municipal Secretariat, in a shooting party of five; previously attacked Malay fisherman (who stepped on it by accident). Shot.	SFP (1948a: 5)
Mar 1948	Jurong	1°20'30.4"N 103°43'38.4"E	[Big]	SI	Sighted by shooting party.	SFP (1948a: 5)
Aug 1948	Kampong Pond, Pulau Tekong Besar	1°24'39.5"N 104°02'44.8"E	2.44 [8 feet]	AH	Bit thigh of Chang Ho Loh at water depth of 6 feet.	SFP (1948b: 5)
30 Jul 1949	Kallang River drain, near Geylang	1°19'07.9"N 103°52'25.4"E	1.37 [4 ½ feet]	CK	300 people watched. Five catching croc. Kept in back yard and fed raw beef on 12-inch skewer. Mr Tan Kim Lin, Chief Clerk, Singapore shipping office Messageries Maritimes. Sighted by Albert, Sonny Robert and Shirley Tan of 5, Lorong 36, Geylang.	ST (1949a: 7)
8 Sep 1949	Pasir Panjang beach, employers prawn-fishing kelong	1°16'31.1"N 103°47'27.1"E	1.83 [6 feet]	AH	Chua Koo Yong, 38, fisherman, attacked on right hand, held onto prawn stake, crocodile eventually let go.	SFP (1949: 1)
11 Sep 1949	Sungei Pandan, off the 9th mile, West Coast road	1°19'04.0"N 103°45'00.6"E	1.22 [4 feet]	CK	Killed with spear by two Malays in a sampan.	ST (1949c: 1)
1950s	Johore Straits near Kranji	1°26'27.3"N 103°44'38.6"E	3.66 [12 feet]	SI	Waterskier fell in front of croc.	Tordy (1957: 2)
1950s	Changi Road, moved from Sungei Biawa between Pengarang and Sungei Papan	1°19'13.6"N 103°55'00.6"E	6.10 [20 feet]	SI	Brought to Changi to be sent to zoo. Commotion and truck was wrecked, crocodile escaped.	JND (1957: 1)

Date	Location	Coordinates (±2 km)	Size details (m)	Event	Event details	Source
1950s	Chua Chu Kang	1°23'00.3"N 103°44'21.5"E		SI	Account by Anton Tordy.	Tordy (1957: 2)
1950s	16 ½ milestone, Boon Lay Road	1°20'03.7"N 103°42'29.2"E	[Large]	SI	Crocodile seen by Manap bin Aman, prawn pond employee.	Tordy (1957: 2)
1950s	Kranji	1°25'21.9"N 103°44'58.8"E		SI	Account by Anton Tordy.	Tordy (1957: 2)
1950s	6th milestone on Jurong road, creek 50 yards from highway	1°21'16.1"N 103°43'28.9"E		SI	Elderly Chinese near sixth milestone, Jurong, frequently fishing in creek 50 yards from highway; saw large log drifting towards him.	Tordy (1957: 2)
1950s	Nearby tributaries of Jurong River	1°21'16.1"N 103°43'28.9"E		AH, AH	Two Chinese boys have disappeared within seven months; assumed to be due to crocodiles.	Tordy (1957: 2)
1950s	Midriver, near the mouth below Tanjong Balai	1°25'04.2"N 103°59'21.5"E		SI	Crocodiles in river and near mouth below Tanjong Balai.	Tordy (1957: 2)
1950s	Bend of Jurong river, 15 feet from Kampong Jawa Teyban, near Pasir Panjang Road	1°19'24.2"N 103°44'04.8"E		SI	Known to frequent depths of river near the bend.	Tordy (1957: 2)
1950s	Largest reptile ever seen in lair in swampland below Pasa Labar, three miles from Jurong village	1°19'48.9"N 103°40'00.0"E		SI	Largest reptile ever seen in lair in swampland below Pasa Labar, three miles from Jurong village.	Tordy (1957: 2)
1950s	Tidal creeks along Jurong River	1°19'24.2"N 103°44'04.8"E		SI	Seen where Malay men cast fishing nets.	Tordy (1957: 2)
1950s	Serangoon	1°21'25.6"N 103°52'21.9"E		SI	Account by Anton Tordy	Tordy (1957: 2)
1950s	Tampines	1°21'37.0"N 103°56'55.5"E		SI	Account by Anton Tordy	Tordy (1957: 2)
1950s	Jurong Prawn ponds and swamp near source of river	1°18'23.6"N 103°43'34.5"E	[3 large crocodiles]	SI	Police officer sportsmen will agree at least three large crocodiles have haunts near Jurong river source.	Tordy (1957: 2)
19 Nov 1953	Flood drain, outside office in Robinson Road	1°16'42.8"N 103°50'55.0"E	0.30 [1 foot]	CK	Mr Tan Bin Chong (Chief clerk). Tan Teng Hee, Jalan Eunus is keeping it as pet.	ST (1953: 9)
19 Jan 1957	13.5 mile, Jurong Road	1°21'21.8"N 103°43'20.2"E	3.05 [10 feet]	AH, CK	Jabbed reptile, alligator sprang and snapped at hand of Nar Kock Bian, 25. Admitted to hospital from bites.	ST (1957a: 1)

Date	Location	Coordinates (±2 km)	Size details (m)	Event	Event details	Source
Mar 1960	Ponggol	1°24'49.4"N 103°54'22.2"E		SI	Lek Yan Chuan, 28, saw crocodile whilst rowing out to kelong.	ST (1960b: 16)
16 Mar 1960	Muddy Creek, Ponggol	1°24'49.4"N 103°54'22.2"E	6.10 [20 feet]	SI	Mr Chew Kok Lee saw crocodile two nights ago (15th), waiting to shoot it, all-night vigil.	ST (1960a: 14)
17 Mar 1960	Ponggol	1°24'49.4"N 103°54'22.2"E	7.62 [25 feet, 600 lb]	SI	Fisherman Goh Koon Chwee, 19, saw crocodile.	ST (1960b: 16)
17 Mar 1960	Ponggol	1°24'49.4"N 103°54'22.2"E		SI	Goh Koon Seng, 15, fisherman, saw crocodile.	ST (1960b: 16)
25 Mar 1960	Ponggol, 50 yards from shore	1°25'13.4"N 103°54'12.2"E	7.62 [One black, one white, 20–25 ft, 60 lb]	SI	Chew Kok Lee saw two crocodiles.	ST (1960c: 4)
19 Apr 1960	Sungei Kadut, Bukit Panjang	1°22'56.6"N 103°45'26.0"E	6.10 [20 feet, covered with barnacles]	SI	Seen by Mr Teo Boon Chin, Ah Lim, who believe the croc is keramat. Villagers offering prayers.	SFP (1960a: 7)
Jun 1960	Banks of 60-yard canal, slopes of Berlayar Hill, Pasir Panjang	1°15'58.5"N 103°48'08.3"E	1.37 [4–5 feet]	SI	Canal infested with crocodiles. Villagers organising feast for keramat crocodile and inviting pawang to invoke the keramat's blessings for crocodile to move elsewhere.	Richards (1960: 9)
Aug 1960	Unused water hyacinth pond, Vaughan Road, off Upper Serangoon Road	1°20'50.1"N 103°52'16.0"E	1.22 [4 feet]	SI	Believed to be a stray from local crocodile farm (Serangoon Garden Estate), Mr Ng Lian Kim keeping watch to kill it before it grows too big.	SFP (1960b: 9)
Nov 1962	Jetty at Kankar—fishing village at the end of Upper Serangoon Road.	1°22'39.6"N 103°54'16.8"E	4.57 [15 feet]	KH	Shot by fisherman Heng Loon, apparently ate two men. Sent to tannery.	ST (1962: 7)
13 Nov 1962	Jetty at Kankar—fishing village at the end of Upper Serangoon Road.	1°22'39.6"N 103°54'16.8"E	6.71 [20–25 feet]	KH	Shot by fisherman Heng Loon, apparently ate two men. Sent to tannery.	ST (1962: 7)
9 Oct 1968	Pet in Seiclene Laundry, Delta Road (previously called Science ElectroSteam Laundry and Dry Cleaning Co)	1°17'24.3"N 103°49'34.8"E	4.88 [Male 16 feet, female smaller]	AH	Moved to zoo. Previously mauled a 50-year-old Indian labourer on 9 Oct 1968.	ST (1968: 5)
1970	St John's Island	1°13'13.8"N 103°50'56.8"E		SI	Seen due to damming of upper reaches of Jurong River.	Rasip A., pers. comm. (2015)
Aug 1972	Jurong Lake	1°20'32.6"N 103°43'26.4"E		SI	First sighted near lake when it was cleared of swamps and marshes two years ago.	New Nation (1972: 2)

Date	Location	Coordinates (±2 km)	Size details (m)	Event	Event details	Source
Sep 1972	Jurong Lake	1°21'10.0"N 103°43'41.2"E	1.68 [5–6 feet]	SI	Newspaper report interviewing Mr Woon Wah Siang, Jurong Town Corporation chairman.	Campbell (1972: 10)
Sep 1972	Jurong and Pandan Rivers—particularly Ulu Pandan area	1°19'10.1"N 103°46'13.4"E	1.98 [6–7 feet]	SI	Dr Tham Ah Kow (former director of Primary Production Department—was chief fisheries officer) noted at least eight between 1952–1955.	Campbell (1972: 10)
Sep 1972	Area west of Tuas, still to be reclaimed	1°19'37.1"N 103°38'55.3"E		SI	Newspaper report interviewing Mr Woon Wah Siang, Jurong Town Corporation chairman.	Campbell (1972: 10)
Sep 1974	Deep fish pond in front of house at Lorong Gambas, off Jalan Ulu Sembawang	1°25'01.2"N 103°47'23.4"E	1.80	AH, CK	Bit Madam Ong Guek Kim, 66. Caught by seven men led by son Mr Teo Teck Seng, 38.	Chan (1975: 1)
1 Jan 1975	Ponggol River, on the shore	1°25'05.8"N 103°54'01.9"E	3.66 [12 feet, 600 lb]	CK	Fishermen have seen it for years. Four fishermen captured it—secured it on wooden pole. Now in pond in village for 'good luck'.	Mohan (1975a: 1)
Apr 1975	Alongside Chinese Garden Tea House, near Jurong Lake. Jurong Lake in Chinese and Japanese Gardens.	1°20'17.14"N 103°43'48.9"E	3.50	SI	The Jurong Town Corporation prepared to deal with crocodiles in gardens. Numerous sightings as far back as 1970.	New Nation (1975a: 2)
May 1975	Jurong Lake	1°20'26.6"N 103°43'35.7"E		SI	Much interest centred around the few crocodiles seemingly to be found in Jurong lake area.	New Nation (1975b: 15)
5 Jul 1975	River bank of Whampoa River, near Bendemeer Road housing estate	1°19'16.4"N 103°51'49.5"E	3.00	SI	Police called, officers from Beach Road station, did not find it.	Mohan (1975b: 1)
28 Oct 1976	Jurong River, reclamation work	1°20'45.4"N 103°43'40.4"E	3.00	CK	Construction workers caught it. Died from injuries, sold to tannery.	ST (1976a: 12)
2 Nov 1976	Geylang Bahru, on bank of Kallang River	1°19'05.5"N 103°52'04.9"E	1.00	SI	Search party organised.	ST (1976b: 6)
7 Jan 1977	Drain under Causeway, Johore Straits	1°26'58.9"N 103°46'11.4"E		SI	Photographed by Straits Times photographer Yow Yun Woh. Villagers say it has been there for a year.	ST (1977a: 6)
14 Mar 1977	Tuas River, under Singapore–Johore Causeway	1°20'55.8"N 103°38'16.8"E	3.00 [3 m, 180 kg]	CK	Four men in kelong in Straits of Johor. Caught in net, freed on shore. 11am. Brought ashore near mouth of Tuas River.	ST (1977b: 13)

Date	Location	Coordinates (±2 km)	Size details (m)	Event	Event details	Source
16 Jun 1977	Straits of Johore	1°26'40.6"N 103°45'00.7"E	[White crocodile]	SI	Sighted five years ago. Scouts searching for croc.	Tan (1977: 12)
14 Nov 1977	Esplanade reclaimed land	1°17'21.4"N 103°51'17.2"E	1.70 [1.7 m, 120 kg]	CK	Fishermen Rodney Roberts, Arthur Chua, Jeff Phoon and Stretch Thompson thought it was a piece of plank. Captured, put in taxi, went home.	New Nation (1977: 2)
4 Nov 1980	West Coast Rise, murky pond 100 metres away	1°18'57.7"N 103°45'09.5"E	1.30	CK	Captured by Michael Fong, 17, on Tuesday night. 8:45pm.	Lim (1980: 10)
Jul 1983	Kallang River	1°18'55.0"N 103°52'10.3"E	1.80	CK	Captured by Lee Ah Tee, 47.	Singapore Monitor (1983a: 1)
Jul 1983	Upper reaches of Kallang River, intersected by Upper Boon Keng Road	1°18'47.4"N 103°52'08.0"E	1.80	CK	Captured by Lee Ah Tee, 47, Mr Lin Zi Sheng, 48.	Singapore Monitor (1983a: 1)
Jul 1983	Upper reaches of Kallang River, intersected by Upper Boon Keng Road	1°19'24.7"N 103°52'03.0"E	2.00	CK	Four men caught crocodile.	ST (1983: 9)
Jul 1983	Kallang River, near Geylang Bahru	1°19'24.7"N 103°52'03.0"E	2.00	CK	Caught but one is still roaming. Mr Lee Ah Tee, 46, Mr Lim Tee Seng, 48, Mr Ng Hwee Huat, 30, Mr Lee Kim Choon, 50.	ST (1983: 9)
8 Jul 1983	Singapore River, near Singapore Warehouse in Martin Road	1°17'27.5"N 103°50'19.2"E	1.60 [1.6 m, 25 kg]	CK	Sighted on 8 Jul by Mr Hans U. Hansen, captured by Lee Ah Tee "Buaya King", 47, and two friends.	Nair (1983: 7)
1 Dec 1983	Tampines farm	1°21'44.5"N 103°56'33.0"E	1.70	CK	Captured by Yang Yingyuan, 25, and brother Yingji, 26.	Singapore Monitor (1983b: 10)
Jan 1984	Kallang River, Upper Boon Keng Road	1°18'52.2"N 103°52'11.3"E	1.80	SI	Sighted by residents of Upper Boon Keng Road. Officials from the Primary Production Department attempted to catch the crocodile last week but failed.	Singapore Monitor (1984a: 6)
Jan 1984	Kallang River, near Block 10 Kallang Bahru	1°19'19.2"N 103°52'05.6"E	1.80	CK	Mr Lee Ah Tee and three friends caught crocodile.	ST (1984b: 12)
Jan 1984	Kallang River near Block 10 Kallang Bahru	1°19'19.2"N 103°52'05.6"E	2.00	SI	Was first spotted by residents in the area. Warning to keep away from river.	ST (1984a: 11)
Jul 1984	Chinese Garden lake, Jurong	1°20'32.6"N 103°43'47.6"E		SI	Seen by two youths.	Singapore Monitor (1984b: 3)
Aug 1984	Singapore river	1°17'17.3"N 103°50'59.6"E		SI	Seen by Mr Huang Yasheng.	Singapore Monitor (1984c: 3)

Date	Location	Coordinates (±2 km)	Size details (m)	Event	Event details	Source
Dec 1985	Pond in Lorong Chuntum, off Jalan Ulu Sembawang	1°25'03.9"N 103°47'28.4"E	1.80	CK	Tried to bite Toh Peng Kooi, 42; captured crocodile.	ST (1985: 17)
18 May 1986	East Coast beach, one opposite HUDC chalets	1°18'17.4"N 103°55'49.8"E	2.50	CK	Found by workers during clean up after oil discharged by a barge which sank. Pulled out by PSA firemen and Singapore Armed Forces. Another caught by workers from Singapore Crocodilarium.	Lim (1986: 1)
18 May 1986	East Coast beach, one opposite HUDC chalets	1°18'17.4"N 103°55'49.8"E	1.50	CK	Found by workers during clean up after oil discharged by a barge which sank. Pulled out by PSA firemen and Singapore Armed Forces. Another caught by workers from Singapore Crocodilarium.	Lim (1986: 1)
Oct 1987	Pulau Retan Laut, West Coast Park	1°16'29.1"N 103°45'07.7"E	1.50	CK	Four men including Mr Richard Tan (general manager of Jurong Crocodile Paradise Pte Ltd) captured crocodile.	ST (1987: 19)
Oct 1987	Pulau Retan Laut, West Coast Park	1°16'37.0"N 103°45'08.7"E	2.40 [up to 2.4 m]	SI	Four members of Republic of Singapore yacht club saw crocodile.	ST (1987: 19)
1988	Sungei Seletar Reservoir		[1 egg, juvenile]	CK	Juvenile hatched from egg LKCNHM ZRC 2.2556. Preserved in ethanol.	LKCNHM Collections
Nov 1988	Sungei Seletar Reservoir, seen from Yishun Street 81 blocks	1°24'39.5"N 103°50'05.0"E	2.50 [2–3 m]	SI	Mrs Chen Cho Yong, 32, reported crocs. Pointed out to middle of reservoir, 4–5 black images.	Tang (1988: 19)
27 Nov 1988	In sea off the Causeway, near JB checkpoint	1°27'15.2"N 103°46'05.5"E		SI	Surfaced near Johor Baru immigration checkpoint. Drew quite a crowd of spectators. A Games Department spokesman said no one should shoot or trap the reptile.	TNP (1988: 2)
28 Nov 1988	Seletar area	1°25'01.5"N 103°52'52.7"E	0.35	CK	Donated to Singapore Zoo.	The Pangolin (1988: 75)
3 Dec 1988	Johor Strait, by the Causeway off Woodlands Checkpoint	1°26'57.4"N 103°46'10.6"E	[Large]	SI		Lianhe Wanbao (1988: 7)
5 Dec 1988	Unknown		0.65	CK	Donated to Singapore Zoo	The Pangolin (1988: 75)
22 Dec 1988	Unknown		0.60	CK	Donated to Singapore Zoo	The Pangolin (1988: 75)
Jul 1989	Seletar area	1°24'45.4"N 103°52'37.5"E	[1 adult, 17 eggs]	CK	Adult sighted. Eggs collected.	ST (1989a, Lim K.K.P., pers. comm., 2015)

Date	Location	Coordinates (±2 km)	Size details (m)	Event	Event details	Source
22 Jul 1989	Sungei Seletar Reservoir	1°24'45.4"N 103°52'37.5"E		CK	17 eggs. Labourer Ang Kim Chua saw croc on Saturday. Nest located. Eggs taken to zoo.	Miller (1989a: 2)
25 Jul 1989	Sungei Seletar Reservoir	1°23'57.3"N 103°50'22.3"E		SI	Police shot at crocodile but missed.	Miller (1989b: 23)
Nov 1989	Nearby river of Jalan Gemala off Lim Chu Kang	1°25'00.2"N 103°42'04.9"E	2.00 [Babies. 1 adult, 2 m]	SI	Several babies caught. Madam Beh's son tried to trap one in February.	ST (1989c: 24)
5 Nov 1989	River off Lim Chu Kang	1°24'52.2"N 103°42'53.2"E	[1 adult]	AH	Thai worker, Mr Sawai Phimde, 31, was attacked by crocodile.	ST (1989b)
1989–1992	Kranji Reservoir	1°25'18.6"N 103°44'17.6"E	[10 crocodiles]	CK	10 caught in 18 months	Chong (1992a: 6)
1989–1992	Jurong Lake at Chinese Garden	1°20'07.8"N 103°43'50.0"E		CK	Three spotted over three years. Five sightings of three crocs over last year, possibly because lake was dammed.	Chong (1992b: 10)
1989–1992	Seletar Reservoir	1°23'56.7"N 103°48'05.8"E	[14 crocodiles]	CK	Assigned to capture crocodiles at night from reservoirs.	Anonymous, pers. comm. (2015)
1989–1992	Kranji Reservoir	1°25'15.6"N 103°44'10.8"E	[14 crocodiles]	CK	Assigned to capture crocodiles at night from reservoirs.	Anonymous, pers. comm. (2015)
1990s	Upper Seletar Reservoir	1°23'57.1"N 103°47'57.6"E		SI		Teo & Rajathurai (1997)
1990s	MacRitchie Reservoir	1°20'41.9"N 103°49'31.7"E		SI		Teo & Rajathurai (1997)
1990s	Semakau Landfill, mangroves	1°12'33.0"N 103°45'45.5"E	[Largish]	SI		Chua (2011)
Jun 1990	Kranji Sports Fishing Ground	1°26'15.9"N 103°44'16.6"E	1.22	CK	Caught by angler Mr Pang Kim Wee. Caught by Jurong Crocodile Paradise and sent to zoo.	TNP (1992a: 6)
Nov 1990	Sungei Buloh Bird's Sanctuary, at prawn ponds	1°26'53.9"N 103°43'16.5"E	1.00	SI	J. Smith saw crocodile.	The Pangolin (1990: 11)
Jan 1991	Johor Straits near Senoko Way, Sembawang	1°28'12.5"N 103°48'39.2"E		SI	Seen by factory worker 50 metres away.	Chan (1991: 3)
Feb 1991	Pulau Tekong, Sungei Semine	1°23'42.4"N 104°02'59.4"E		SI	LKW reports crocodiles being seen by his fellow national servicemen basking on the banks of Sg. Semine.	Lim (1991: 4)
13 May 1991	Sungei Tampines, Canal running through Pasir Ris Blk 408, Pasir Ris Drive 6	1°22'27.2"N 103°56'31.8"E	0.50 [45–50 cm]	CK	Manager of fishing pond, Mr Tay Choon Mok, 34, about to let sea water into the Pasir Ris Park fishing pond. Given to zoo.	ST (1991a)
Sep 1991	Monsoon drain at Fort Road	1°17'50.9"N 103°53'07.4"E		SI	Housewife saw crocodile.	ST (1991b)

Date	Location	Coordinates (±2 km)	Size details (m)	Event	Event details	Source
1992	Kranji Reservoir, near BBC relay station	1°25'13.0"N 103°43'40.0"E		SI	Fishermen having observed crocodiles at the Kranji Reservoir near the BBC radio station.	Lim & Subharaj (1992: 9)
30 Jan 1992	Kranji Reservoir	1°25'15.6"N 103°44'10.8"E	1.50	CK	Seen last Thursday.	Chong (1992a: 6)
Feb 1992	Raffles Country Club, Tuas; Tengah Reservoir Golf Course, 13th Fairway	1°22'55.7"N 103°40'48.6"E	3.00	SI		Sahari (1992: 13)
5 Feb 1992	Kranji Reservoir and surrounding rivers	1°25'15.6"N 103°44'10.8"E		SI		TNP (1992b: 11)
Mar 1992	Jurong Lake	1°20'28.6"N 103°43'40"E		SI		TNP (1992b: 11)
Mar 1992	Seletar Reservoir	1°23'56.7"N 103°48'05.8"E		SI		TNP (1992b: 11)
Mar 1992	Tengah Reservoir	1°22'46.2"N 103°40'31.4"E	3.30	SI	At the 13th fairway, Raffles Country Club	TNP (1992b: 11)
7 Dec 1992	Off East Coast Park beach	1°18'04.2"N 103°54'59.0"E		SI	Seen on Monday afternoon by Mr Hazral Dol Wahab, 21, a national serviceman, was on a picnic with 28 family members and friends.	Lim (1992: 15)
18 Dec 1992	Marina East seashore	1°16'51.5"N 103°52'30.3"E	2.00	SI	Sighting.	Lim & Subharaj (1992: 9)
18 Dec 1992	Southeastern coast line			CK	Previously sighted. Captured alive at about 5:30 pm, transported to the Singapore Crocodillarium.	Lim & Subharaj (1992: 9)
May 1995	Johor Strait, by the Causeway off Woodlands Checkpoint	1°26'57.4"N 103°46'10.6"E	1.80	SI	Between 1.5 to 1.8 m; seen for at least four days prior.	Lim, Subharaj & Teo (1995: 19)
Jun 1995	Strait of Johor, off Admiralty Road	1°27'04.1"N 103°46'27.7"E	2.00	SI		ST (2014)
Jul 1995	Punggol Estuary	1°25'05.9"N 103°53'55.2"E	2.00 [2 m, 20–30 kg]	CK	Female captured, sent to Singapore Crocodilarium at East Coast Parkway.	Lim, Subharaj & Teo (1995: 19)
Jul 1995	Central Beach, Sentosa	1°14'53.9"N 103°49'21.5"E		CK	Possibly a caiman, unidentified, presumed escapee. Found in shallow pond, handed over to Sentosa Development Corporation.	Lim, Subharaj & Teo (1995: 19)
17 Jul 1995	Off Track 13 at Punggol	1°24'36.8"N 103°54'38.2"E	2.00	SI	Seen for at least three months by members of the public in Punggol Estuary off Punggol track 13.	Lim, Subharaj & Teo (1995: 19)
21 Jul 1995	Pulau Seletar	1°26'33.4"N 103°51'44.4"E	2.00 [2 m, likely the same as 17 Jul]	CK		Lianhe Wanbao (1995: 10)

Date	Location	Coordinates (±2 km)	Size details (m)	Event	Event details	Source
Oct 1996	Pulau Seletar	1°20'40.0"N 103°49'47.1"E		SI		Tee (1996: 27)
Feb 1997	Lorong Halus Freshwater pond near rubbish dump	1°23'41.7"N 103°55'23.4"E	3.00	SI		VSS (1997, Lim K.K.P., pers. comm., 2015)
May 1997	Off Pasir Ris Park, near People's Association Pasir Ris Holiday Complex and Sea Sports 20 metres from beach	1°22'49.1"N 103°56'56.8"E	3.00	SI	Two groups of people saw it; Mr Haul Rawi, Mr Nordin Rawi, Mohamad Rizal Yusof were fishing.	Singh (1997: 31)
10 Jun 1998	Tuas shipyard	1°18'00.8"N 103°39'09.8"E		SI	Seen swimming into shipyard.	Chua (1998: 65)
2 May 2002	Sungei Buloh Wetland Reserve	1°26'46.0"N 103°43'41.4"E	[1 adult]	SI	Seen by N. Baker.	VSS (2002a, Lim K.K.P., pers. comm., 2015)
Sep 2002	Sungei Buloh	1°26'53.1"N 103°43'25.4"E		SI	Warning of crocodiles in the area.	ST (2002: 11)
Oct 2002	Central Business District, drain at Trafalgar Street near Anson Road	1°16'23.7"N 103°50'40.3"E	1.70 [1.7 m, 23 kg]	CK		Chew (2002: 2)
10 Oct 2002	Anson Road, in roadside drain	1°16'24.4"N 103°50'40.1"E	1.40	CK	Caught and taken to zoo.	VSS (2002b, Lim K.K.P., pers. comm., 2015)
23 Apr 2003	Sungei Buloh	1°26'48.0"N 103°43'38.8"E	[Estimated length 1.5 m]	SI	SgBeachBum on Vimeo, sighted and filmed.	SGBeachBum (2011a)
11 May 2003	Sungei Buloh Wetland Reserve, end of big boardwalk	1°26'45.6"N 103°43'40.3"E	[1 adult]	SI	Seen by N. Baker.	VSS (2003, Lim K.K.P., pers. comm., 2015)
Aug 2003	Singapore River	1°17'12.0"N 103°51'01.6"E		SI	Played dead then swam away.	Tan (2003: 16)
Aug 2003	Jalan Teck Whye	1°22'47.8"N 103°45'28.4"E		CK		Lee & Lee (2003: 12)
7 Aug 2003	Singapore River in front of Fullerton Hotel	1°17'12.4"N 103°51'10.0"E	1.00	SI		Lianhe Wanbao (2003: 5)
Sep 2003	Woodlands Town Garden	1°26'17.2"N 103°46'11.2"E	2.00	CK		ST (2003b: 5)
13 Sep 2003	Woodlands Town Park in swampy ground near lake	1°26'12.7"N 103°46'48.0"E	2.00	CK		ST (2003a, Lim K.K.P., pers. comm., 2015)
Aug 2004	Khatib Bongsu mangroves	1°26'11.6"N 103°50'55.5"E		SI	Seen by H. Yeo.	VSS (2004c, Lim K.K.P., pers. comm., 2015)

Date	Location	Coordinates (±2 km)	Size details (m)	Event	Event details	Source
2 Oct 2004	Sungei Buloh Besar under main bridge	1°26'45.9"N 103°43'40.4"E	[1 adult]	SI		VSS (2004a, Lim K.K.P., pers. comm., 2015)
16 Oct 2004	Sungei Buloh Besar under main bridge	1°26'46.0"N 103°43'41.7"E	[1 adult]	SI		VSS (2004b, Lim K.K.P., pers. comm., 2015)
14 Dec 2005	Sungei Kranji	1°25'37.7"N 103°44'27.6"E	1.60	SI	Seen by NParks.	VSS (2005, Lim K.K.P., pers. comm., 2015)
14 Jan 2006	Sungei Buloh Besar at sluice gate near main bridge	1°26'46.0"N 103°43'41.7"E	2.00	SI	Seen by N. Baker.	VSS (2006c, Lim K.K.P., pers. comm., 2015)
25 Sep 2006	Kranji Reservoir	1°25'37.7"N 103°44'27.6"E		SI	VSG: Public Utilities Board.	VSS (2006a, Lim K.K.P., pers. comm., 2015)
27 Sep 2006	Kranji Reservoir	1°25'37.7"N 103°44'27.6"E	[45 eggs collected from nest]	CK	VSG: Public Utilities Board: 45 eggs collected.	VSS (2006b, Lim K.K.P., pers. comm., 2015)
29 Jan 2007	Sungei Buloh Wetland Reserve	1°26'49.7"N 103°43'43.5"E	1.50	SI	Seen by H.H. Tan.	VSS (2007a, Lim K.K.P., pers. comm., 2015)
10 Jul 2007	Sungei Buloh Wetland Reserve	1°26'46.0"N 103°43'41.7"E		SI	Seen by K.C. Tsang.	VSS (2007b, Lim K.K.P., pers. comm., 2015)
26 Nov 2007	Sarimbun Reservoir, outflow into Johor Strait	1°25'34.8"N 103°41'02.4"E	[Under 1 m]	SI		Ng & Lim (2010: 119)
2 Dec 2007	Pasir Ris Park	1°22'56.1"N 103°57'07.6"E	[1 juvenile]	SI		Clubsnap Forum (2007, Lim K.K.P., pers. comm., 2015)
7 May 2008	Johor Strait, by the Causeway off Woodlands Checkpoint. Near entrance of Lorong Fatimah.	1°26'55.0"N 103°46'10.4"E		SI	Seen by checkpoint inspector.	VSS (2008a, Lim K.K.P., pers. comm., 2015)
Jul 2008	Tampines River Canal	1°22'03.4"N 103°57'14.7"E		SI		Ng (2008a: 6)
Aug 2008	Pasir Ris Beach	1°23'04.6"N 103°56'46.4"E	0.50	SI	Seen by Mr Ong Wee Lee, 70.	Ang & Spykerman (2008a: 26)
Aug 2008	At mouth of Sungei Tampines (near mangrove swamp beside Tampines River canal in Pasir Ris Park)	1°22'51.0"N 103°57'13.6"E	1.00 [Over 1 m]	SI	Seen by Mr Ong Wee Lee, 70.	Ang & Spykerman (2008a: 26)

Date	Location	Coordinates (±2 km)	Size details (m)	Event	Event details	Source
Aug 2008	Sungei Tampines	1°22'43.2"N 103°57'11.7"E	1.00 [1 m, likely to be the same as 3 Aug 2008]	CK	Captured by anglers. Sighted by Mr Muhd Rizhal Senin.	Ng (2008b)
Aug 2008	Pasir Ris Park	1°23'01.6"N 103°56'52.0"E	1.00	CK		Ng (2008b)
Aug 2008	Pasir Ris Park, Mangrove swamp near Tampines River canal	1°22'23.3"N 103°57'11.0"E		SI		Ang & Spykerman (2008b: 27)
6 Aug 2008	Mangrove swamp near the Tampines River canal in Pasir Ris Park	1°22'23.3"N 103°57'11.0"E		CK	Park regulars and nature lovers have joined officers from the PUB in trying to track down the reptile.	Ang & Spykerman (2008b: 27)
3 Oct 2008	Sungei Buloh Besar at sluice gate near main bridge	1°26'46.0"N 103°43'41.7"E	1.00	SI		VSS (2008b, Lim K.K.P., pers. comm., 2015)
11 Oct 2008	Kranji Nature Trail, along shore	1°26'23.7"N 103°44'11.5"E	1.90	SI	Seen by M. Ng. Croc found dead.	VSS (2008c, Lim K.K.P., pers. comm., 2015)
2009	Singapore		[Eggs, juveniles]	CK	LKCNHM ZRC 2.6841– 6843, 6848. Preserved in ethanol.	LKCNHM Collections
31 Jan 2009	Off Pulau Buloh	1°27'01.9"N 103°43'26.0"E	1.50	SI	Seen by R. Subaraj.	VSS (2009a, Lim K.K.P., pers. comm., 2015)
8 Apr 2009	Hide 3A by freshwater ponds, Sungei Buloh Wetland Reserve	1°26'49.9"N 103°43'04.1"E	[30 eggs]	RE	30 eggs in nest found and relocated.	VSS (2009b, Lim K.K.P., pers. comm., 2015)
May 2009	Kranji Dam	1°26'18.6"N 103°44'21.0"E		SI		ST (2009: 6)
15 Nov 2009	Sungei Buloh Wetland Reserve, freshwater pond beside Outdoor Classroom	1°26'51.8"N 103°43'04.7"E	[Largish]	SI	Seen by H. Flotow.	VSS (2009c, Lim K.K.P., pers. comm., 2015)
1 Jul 2010	Sungei Buloh Besar under main bridge	1°26'46.0"N 103°43'41.7"E	[2 adults]	SI	Seen by H. Flotow.	VSS (2010, Lim K.K.P., pers. comm., 2015)
15 Jan 2011	Sungei Buloh Besar	1°26'39.2"N 103°43'37.8"E		SI		Ng (2011)
21 Mar 2011	Sungei Buloh Besar	1°26'47.9"N 103°43'42.0"E	[Tail-less individual]	SI	Seen by V. D'Rozario.	D'Rozario (2011, Lim K.K.P., pers. comm., 2015)
11 Apr 2011	Kranji Nature Trail, by main bridge	1°26'22.5"N 103°44'41.1"E		SI	Seen by N. Baker.	VSS (2011, Lim K.K.P., pers. comm., 2015)

Date	Location	Coordinates (±2 km)	Size details (m)	Event	Event details	Source
8 May 2011	Sungei Buloh, pathway	1°26'48.2"N 103°43'40.6"E		SI	SgBeachBum on Vimeo, sighted and filmed.	SgBeachBum (2011b)
26 Jun 2011	Sungei Buloh around platform 1	1°26'58.9"N 103°43'45.4"E	1.00 [juvenile about 1 m]	SI	SgBeachBum on Vimeo, sighted and filmed.	SgBeachBum (2011c)
Dec 2011	Kranji Reservoir	1°25'35.1"N 103°44'38.7"E	3.00	SI	Sighted by Ng Ngee Hua, 41, fisherman.	Toh (2012)
29 Mar 2012	Lim Chu Kang	1°26'17.4"N 103°41'49.4"E	2.00	SI	Sighted in nearby waters.	Toh (2012)
May 2012	Abandoned fish farm, Woodlands Causeway	1°27'08.8"N 103°46'41.5"E		SI	Seen by 'Hafiz'.	Singapore Seen (2012a)
Oct 2012	Sungei Buloh Wetland Reserve	1°26'52.0"N 103°43'47.3"E	3.00	SI	Seen by 'Hau'; near the wetland surrounding the 18-metre aerie of Sungei Buloh Wetland Reserve, a crocodile was spotted this morning.	Singapore Seen (2012b)
Aug 2013	Johor Strait at end of Lim Chu Kang Road	1°26'45.1"N 103°42'26.6"E	[2 basking]	SI	Spotted by kayakers	Singapore Seen (2013a)
4 Oct 2013	Sungei Buloh Wetland Reserve, freshwater buffer pond	1°26'53.5"N 103°43'06.8"E	[Largish]	SI	Seen by H.H. Tan.	VSS (2013, Lim K.K.P., pers. comm., 2015)
Dec 2013	Sungei Buloh Wetland Reserve on main footpath	1°26'46.4"N 103°43'39.6"E		SI	Seen by teacher and group of seven-year-old schoolchildren from the United World College of South East Asia.	Singapore Seen (2013b)
Dec 2013	Sungei Buloh Wetland Reserve	1°26'47.8"N 103°43'40.6"E	[3 crocodiles]	SI	Seen by Jason Quah; MyPaper says SBWR is home to eight crocodiles.	Singapore Seen (2013c)
Mar 2014	Sungei Buloh Wetland Reserve overlooking Johor	1°27'03.8"N 103°43'19.1"E	[Large]	SI	Seen by 'Angler'.	Singapore Seen (2014a)
4 May 2014	Kranji Reservoir	1°26'13.1"N 103°44'12.2"E	[400 kg]	SI	Crocodile handler employed by Public Utilities Board. Crocodile known to anglers as Barney found dead.	Singapore Seen (2014b)
18 Nov 2014	Singapore Island, Sungei Buloh Besar, along the main bridge	1°26'46.2"N 103°43'40.1"E	2.00	SI	Tammy Lim saw it eating the carcass of a domestic cat. Sungei Buloh Wetland Reserve; 18 November 2014; around 1640 hrs.	Lim (2015: 36)
16 Dec 2014	Kranji extension (Sungei Buloh WR)	1°26'54.8"N 103°43'46.9"E		SI	Seen by N. Baker.	VSS (2014, Lim K.K.P., pers. comm., 2015)
16 May 2015	Sungei Buloh Wetland Reserve	1°26'48.6"N 103°43'41.0"E	[3 crocodiles]	SI	Seen by B. Lee.	Singapore Seen (2015a)
14 Jul 2015	Sungei Buloh Wetland Reserve, extension of footpath	1°26'48.6"N 103°43'41.0"E	[Juvenile]	SI		Singapore Seen (2015b)

Date	Location	Coordinates (±2 km)	Size details (m)	Event	Event details	Source
14 Dec 2015	Sungei Buloh Wetland Reserve, end of main bridge in water	1°26'45.9"N 103°43'40.1"E		SI	Seen by Z. Puan.	Puan, pers. comm. (2015)
6 Apr 2016	Lim Chu Kang Jetty	1°26'48.6"N 103°42'27.0"E		SI	Seen by D. Khor basking on jetty.	Khor (2016)
Jun 2016	Woodlands Waterfront Park	1°27'12.1"N 103°46'42.1"E	3.00	SI	Bit angler's bait but was not caught.	My Paper (2016)
18 Nov 2016	Lim Chu Kang Fish Farm	1°26'23.8"N 103°43'06.0"E	2.50	RE	Wedged between a fence, some wood and machinery on fish farm.	Chew (2016)
27 Nov 2016	Marina Reservoir	1°16'49.1"N 103°52'19.6"E		SI	Sighting reported by PUB.	Channel News Asia (2016)
1 Apr 2017	Woodlands Causeway (near shore)	1°26'56.6"N 103°46'11.3"E		SI	Swimming close to shore.	Iesa I., pers. comm. (2017)
12 Jun 2017	Sungei Sembawang, Blk 469B	1°26'54.6"N 103°48'46.6"E	[Medium size]	SI	Basking on riverbank.	Contributor (2017)
5 Jul 2017	Kranji Way, near Kranji Dam	1°26'19.0"N 103°44'33.3"E	1.50	CK	Hit by a car around 10 pm. Right hind leg reportedly injured. Crocodile farm offered to look after it, took it away for treatment.	ST (2017a)
9 Jul 2017	Sembawang waters	1°27'49.6"N 103°50'16.8"E		SI	Seen by coastguard swimming in water near Sembawang.	Ng (2017)
1 Aug 2017	Pasir Ris Park; mudflat at Sungei Tampines	1°22'54.4"N 103°57'13.8"E	2.00	SI	Seen by Ted Lee, 60; approx. 4 pm.	ST (2017b)
5 Aug 2017	Pasir Ris Park; beach area	1°22'55.8"N 103°57'08.6"E		SI		ST (2017b)
21 Aug 2017	Pulau Ubin Jetty	1°24'04.6"N 103°58'12.4"E		SI	Seen by fisherman P. Lin.	Sea Angel (2017)
21 Aug 2017	Changi Ferry point to Pulau Ubin	1°23'31.0"N 103°59'13.8"E		SI	Seen by Mohd Rafi Basiran.	Mohd Rafi Basiran (2017)
24 Aug 2017	Changi Beach Park near Ferry Terminal	1°23'28.4"N 103°59'17.6"E		SI	Seen by ICA Officer while out on patrol. Seen again later in the week.	Hussein (2017)
24 Oct 2017	Sungei Buloh Wetland Reserve in mangrove near Main Hide 1D	1°26'49.52"N 103°43'31.64"E		SI	Resting in mangrove area near walkway.	Pocklington (2017)
6 Nov 2017	East Coast Park, in water at a construction site where canal is being built	1°18'51.1"N 103°57'46.4"E		SI	Activities suspended at National Sailing Centre (NSC) after sighting.	Lam (2017)

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Abbreviations used in the text:

EDM	Eastern Daily Mail and Straits Morning Advertiser
TNP	The New Paper
ST	The Straits Times
SFP	The Singapore Free Press
SFPMA	The Singapore Free Press and Mercantile Advertiser

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