

FOR TIGERS



JULY 2018

UNCHAINING TIGER TOURISM



THAILAND'S CAPTIVE TIGERS AND THE WELFARE STRUGGLE THAT THEY FACE



INTRODUCTION

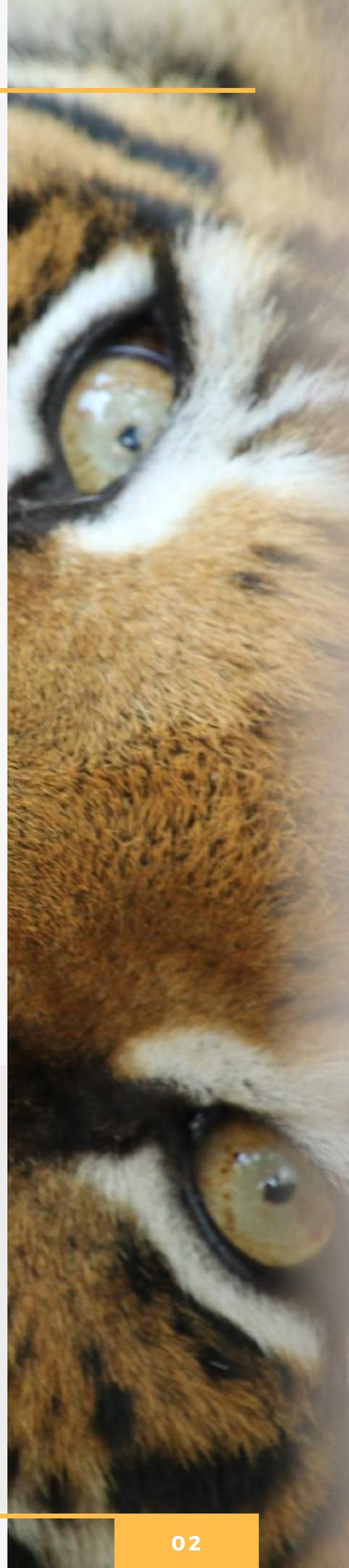
Wildlife tourism is a major source of income in Thailand and hugely popular with visiting foreigners of all nationalities. The main tourist sites, such as Pattaya, Bangkok and Phuket, are full of animal shows containing tigers, elephants, crocodiles and monkeys. These shows are perpetuated by the streams of tourists that still desire to sit with a dangerous or wild animal, ride one or watch them perform tricks [1].

Our focus here is on the attractions with tigers and the photographs and shows that surround them. Tigers, being such iconic and potentially dangerous predators, are one of the most sought-after animals in terms of photos. Partially fuelled by social media, the trend has become widespread. This has led to numerous tigers being bred and kept in captivity just for this purpose, often in highly inadequate conditions [1,2,3].

A further issue is the cultural differences in relation to welfare. Thailand only implemented its Animal Cruelty Prevention and Welfare Act in 2014 and, as yet, this has failed to have an effect on wildlife tourism. Lack of education plays a part along with the Act being rather vague. Unreasonable and inappropriate use are not clearly defined and housing and nutrition are simply described as what is appropriate for the species. With such vagueness, it is not surprising that welfare still suffers. In addition to this, many Thais do not truly understand what cruelty and welfare are [4]. To illustrate this, Section 21 of the Act outlines acts that are not deemed cruel, many of which the Western world would condemn, so unsurprisingly, many facilities follow what Cohen [4] states is, "considered normal practice in dealing with wild animals in Thailand".

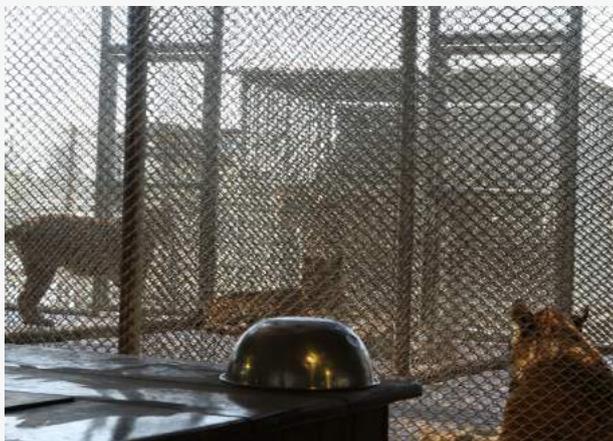
OUR AIM

This report was created with the purpose of providing some background information about the lives of captive tigers in general, and specifically in Thailand. It aims to give clear information about conditions at animal attractions throughout the country. Many reports focus solely on the negative aspects, of which there are admittedly many, but this report will try to provide some ethical alternatives to consider when on a trip around Thailand. The report covers a wide variety of facilities ranging from those with fully hands-on interactions to those with none at all, and outlines the differences between them, allowing readers to make a much more informed choice about where and which tiger (and other animal) attractions to visit when in Thailand.



LIVING IN CAPTIVITY

The majority of tourists have no idea what goes on behind the scenes when they get a tiger selfie. Large tigers basking in the sun or small cubs drinking milk from bottles offer a nice picture, but it is an incomplete one.

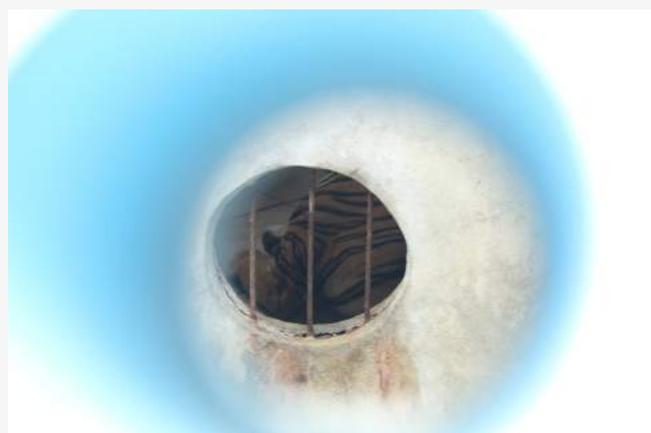


This practice can have a negative effect on the cub's mental and physical health, and this early stressor is linked to the development of stereotypies (repetitive functionless series of movements [6]). The practice continues because cubs are easier to handle if they have been raised by humans, which in turn, makes daily health monitoring and veterinary care easier, since the animals are less stressed when being handled. Therefore there are both positive and negative aspects depending on how the overall care is managed after the cub is removed from its mother. However, the over-riding factor maintaining this practice is tourist demand for photos with baby tigers.



However, facilities that do not offer interactive experiences are notable for usually having fewer tigers and rarely any cubs. Furthermore, they tend to provide large, species-specific environments that include enrichment, natural vegetation, hiding places, correct diet, vet care and the ability to perform natural behaviours as and when it suits the animal.

Facilities offering interactive experiences rely on having a lot of cubs. In order to meet the demand, tigresses are bred intensively; a practice dubbed “speed breeding”. In the wild, tiger cubs stay with their mother for about 2 years [5], but in the tourism industry, tiger cubs are removed from their mother as early as 2 weeks [2,4]. Although this can be stressful to the mother, wild tigresses often lose cubs at a young age. The loss of cubs causes the female to come back in heat within a few weeks. This evolutionary trait is taken advantage of in captivity, accelerating reproduction from an average natural rate of 1 litter every 2 years up to 2 litters per year.



Speed breeding raises another issue - lack of space. Tigers in these facilities are often confined to small, barren cages with no enrichment or species-specific environments [2]. Additionally, tigers may be restrained, handled by numerous tourists and staff, treated harshly, placed in distressing situations and forced to perform unnatural behaviours. Incorrect environments, such as abnormal social groupings, increased noise levels and being forced to stay awake throughout the day, increase the likelihood of stress-related behaviours [6, 7] such as pacing [8] developing, which are contrary to natural tiger behaviour [9].



CONSTANT GROWTH

Despite multiple reports on the state of tiger tourism in Thailand over the past few years, the industry is still growing. On 30th May 2016 the Tiger Temple, Kanchanaburi was closed [10], a sign many took to be a crackdown on the industry [11]. Nothing more has come of it and no further facilities have been shut down or had additional restrictions placed upon them. In fact, in the 2 years since the Tiger Temple's closure, a number of new facilities have opened up including a brand new attraction in Pattaya, which follows the setup of the Tiger Kingdom brand [12]. In addition to this, the zoo license acquired by the Tiger Temple prior to its closure was never revoked and brand new zoo buildings were recently completed by February 2018. Towards the end of 2017 and into early 2018, there were reports circulating that the Temple would actually be receiving tigers from the Mali Salika Tiger Zoo in Nakhon Nayok [13]. However, in April 2018 the decision to send upward of 20 tigers here was reversed and the DNP chose to remove the zoo license and relocate those tigers to other zoos around the country, including Mukdahan Tiger Zoo and Farm [14], Uthong Zoo and Chumphon Zoo (Suchat 2018, Personal communication, 6 April).

This report covers research from two separate years of investigation. Our researchers visited tiger venues across Thailand in 2017, re-visiting the same facilities in 2018, plus all additional newly established ones. The number of tigers reported by facility staff and observed by our researchers was recorded, as was the welfare and living conditions of these tigers. One change our researchers noted was the displaying of microchip numbers outside cages and clearly visible to tourists in a large number of facilities. This is a new requirement from the Department of National Parks (DNP) with whom all tigers must be registered using a photographic ID card as a preventative measure against trade.

This report highlights just how much the tiger tourist industry is expanding with new facilities being added each year and tiger numbers growing considerably. In addition, there was a clear discrepancy found regarding tiger numbers, both reported and observed, in a number of facilities. A previous report on this subject also raised this issue and the potential illegal trade implications this might have [15].

This report indicates that it is a combination of tourist demand and lax animal welfare laws that have furthered this industry and continue to do so.

THE CASE OF TIGER TEMPLE

The most notorious and recent exposure of the tiger tourism industry was that of Tiger Temple, Kanchanaburi. On 30th May 2016, Tiger Temple was raided and all tigers removed amid allegations of trade. Numerous tiger skin necklaces, teeth, dead cubs and adult skins were discovered [10]. Two years on, there have been no arrests and, until February 2018, the Temple had been building a zoo with the potential of receiving tigers from other facilities [13].



The Temple offered a comprehensive range of interactions with their tigers from simple photo ops to cub feeding and playing activities. With this came a lot of controversy over the conditions in which these tigers were kept. Tigers were chained for photo opportunities from noon until 4pm in a canyon before participating in an evening exercise programme in a large pond. Tourists sat behind the tigers for the most part, though a special photo option included staff man-handling a tiger's head and placing it into tourists' laps. The cub exercise programme involved tourists using enrichment toys to get the tigers to play and jump. A third programme for cub feeding allowed bottle-feeding of younger cubs removed from their mothers at a young age. Tigers used in these programmes ranged from 1 month to 12 years old.

However unethical, at any one time only a minority took part in tourist interactions with around 15 participating in photo ops and 10 - 15 in the other programmes. The majority of the tigers no longer participated in any of these activities. Instead, they were rotated out into large enclosures in Tiger Island on an every second day basis. Tigers participating in tourist programmes in the afternoons, had access to enclosures for the morning. There were allegations of abuse in order to make the tigers compliant for photos, with one notable tourist-filmed video showing a staff member punching a tiger in the face [16]. However, this was not standard training and volunteers implemented the use of toys to encourage them to walk. In addition, the tigers were fed before noon and only brought out during the time of day when they would naturally be sleeping.



Top - Mek and Solo at Tiger Temple, Bottom - Mek and Solo at DNP (Photos taken on DNP Media Open Day - 1st July 2016)

After the Temple's closure, the tigers were rehomed to two DNP facilities in Ratchaburi. Despite NGO concerns over poor welfare and abuse at the Tiger Temple [17], the welfare of these tigers has decreased dramatically at the government facilities. Though the tigers no longer interact with the public (a huge positive), lack of funding has resulted in poor cage design and swift diet changes. The high levels of stress induced by their relocation led to many tigers falling ill. A third of the tigers have now died since their confiscation.

The remaining tigers languish in 10x4 metre cages with minimal enrichment and no natural vegetation. At the time of writing, six enclosures have been built funded by For Tigers, Wildlife Friends Foundation Thailand and Wildheart Foundation. Though not large, nor nearly as species-appropriate as we would like, each of these enclosures contains trees, grass, a platform, a large pond and enrichment items and measure 10x20 metres.



New enclosure at DNP - Photo taken with permission

WHAT IS ANIMAL WELFARE?

The term animal welfare is often thrown around but what does it actually mean? Even in the animal welfare world, the definition of welfare is widely debated, though many tend to use Broom's definition [18], where "welfare of an individual is its state as regards its attempt to cope with its environment". To explain this in more detail there are considered to be three welfare states that round out the definition [19]:

- **Biological function** - to grow at the rate they are supposed to, reproduce well etc.
- **Affective state** - The animal has what it needs in order to be comfortable.
- **Ability to perform natural behaviour** - the animal is living in an environment as close to its natural environment as possible.

The difficulty here is that depending on the facility or the proposed use of the animal, these three states are assigned varying levels of importance, which can affect how welfare is perceived, implemented, measured and assessed.

Facilities that require a high turnover of cubs will put priority on biological functions, ensuring that the tigresses are healthy enough to produce multiple litters in quick succession, but this will be to the detriment of both affective state and natural behaviour. However, not all such facilities even take health into account since there are replacements being produced fast enough that the tigers don't need to be healthy or live long – just be healthy enough to have a couple of litters.

Conversely, facilities aiming to provide as natural a life as possible can go to the other extreme, where tigers living in natural enclosures are more likely to become injured or potentially contract a disease from their outside environment.

Therefore, it is important to try to implement a well rounded welfare framework, encompassing all three factors – health, affective state and natural living [19]. This is hard to accomplish completely as improving welfare in some of these areas can hinder others [20]. It is hard to agree on poor welfare when the definition is unclear. With this in mind the Brambell Report (1965) created a guideline entitled the Five Freedoms [6].



THE FIVE FREEDOMS

The Five Freedoms was the first welfare assessment framework created. However they focus on the negative and offer minimum standards [19]:

1. Freedom from hunger and thirst
2. Freedom from discomfort
3. Freedom from pain, injury or disease
4. Freedom to express natural behaviour
5. Freedom from fear and distress

THE FIVE DOMAINS

The Five Domains is a more recent model promoting a positive approach to welfare through assessing the subjective experience of the animal [19]:

1. Nutrition
2. Environment
3. Physical Health
4. Behaviour
5. Mental State



HOW TO MEASURE WELFARE



Welfare is comprised of two main measures: resource-based inputs and animal-based outputs [20]. The former includes nutrition, resources and the environment as a whole, including factors such as ambient temperature, human-animal relationships and social groupings [21]. Animal-based measures relate to the individual, showing the response of the animal to its environment, and use behavioural, physiological and health measures [20].

Behavioural observations are used across all animal industries to determine welfare. A wide range of behaviour is a sign of good welfare with stereotypies (repetitive/abnormal behaviour) and avoidance behaviour being negative [22]. In a welfare assessment, both positive behaviours including relaxation, play, grooming etc, and negative behaviours such as avoidance, fleeing and distress should be recorded [23, 24].

Human-animal relationships can be studied using measurements of fear towards a human. The forced approach test records whether the animal moves away in fear. The voluntary approach test records whether an animal will approach the person on its own [23]. In a zoo environment, the relationship between animal and keeper is important as the keeper has control over the animal's environment and therefore the welfare of the animal [19].

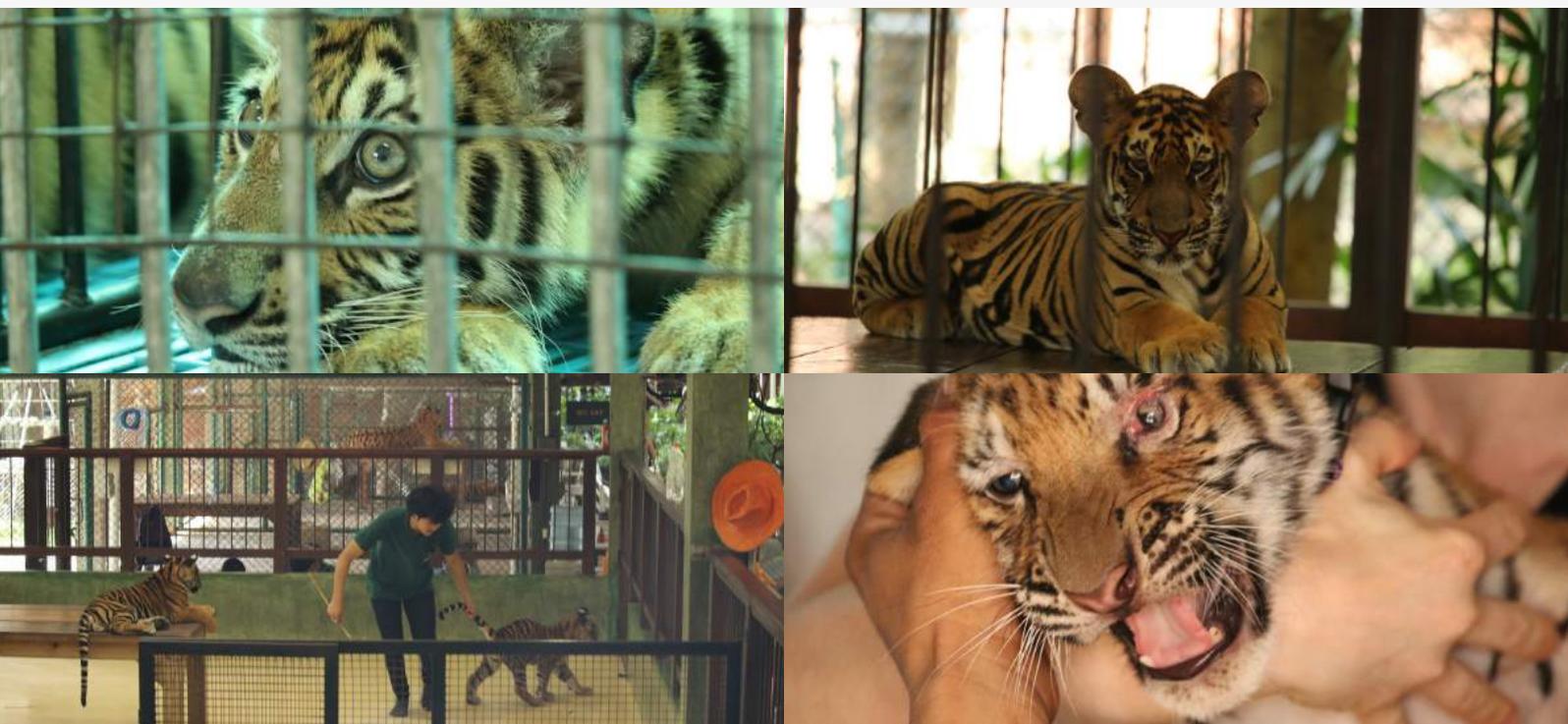
Vocalisations, facial cues and other affective behavioural signals can be used to record how animals respond to an environment. Careful study of a specific species allows researchers to accurately determine many aspects of behaviour, such as when the animal is in pain; but positive cues including anticipation, play and grooming should also be recorded [24]. However, building an accurate picture of behavioural signals does require research of the captive animal's wild counterparts.

Physiological indicators of stress include heart rate, respiration rate and blood pressure [25]. Other measures include measuring glucocorticoid hormones from blood, urine, hair or faeces with a higher level of cortisol correlating with an increased level of stress and vice versa [25]. Cortisol collection can be done non-invasively from faeces, urine or hair samples, though it is important to pair these results with other measurements, such as behavioural indicators, since positive experiences, such as playing, can also increase cortisol levels [26]. A reduction in cortisol levels may also simply mean a less unpleasant situation rather than better welfare [19], thus demonstrating the need to combine assessment measurements.

Facilities with captive animals need to account for individual variation within a species and should use cross-institutional research in order to quantify the optimal environment for a species as a whole and at the individual level [27]. The stress response should be measured over a period of time to ensure continued positive welfare is achieved.

Good health is a large part of positive animal welfare, with disease, starvation and other medical issues seen as poor welfare [26]. Assessments must include the importance of health, which is often lost when multiple measurements and weightings are combined. It cannot be stressed enough how much bearing health has on welfare, with poor welfare leading to disease and good welfare ensuring healthier animals [28]. Clinical measurements include body temperature, pulse, gait and body condition scoring [29]. Life expectancy and fecundity should also be recorded, with longer life and healthy offspring indicative of better welfare states [30]. Evidence of disease or injury can be measured through body condition and gait scoring [31]. This can be challenging because some animals hide pain, an adaptation from the wild, so this cannot be used unless in conjunction with other measures [32] and highlights the importance for focusing on positive behaviours rather than negative ones [23].

There are many challenges associated with the assessment of resource-based measures, such as climate, nutrition, social dynamics, housing, relocation and zoo-visitor effect, as these need to be related back to species-specific needs [7,31]. For some species, it is hard to interpret what constitutes negative or positive behaviours, as there is little knowledge of their wild behaviour [32]. Additionally, animals in captivity will often display different behaviours compared to their wild counterparts, making it hard to compare behaviours in order to determine whether something is an abnormal behaviour or not [21, 30].



STEREOTYPICAL BEHAVIOURS

Stereotypies, defined as repetitive and apparently functionless behaviours [6, 22], are commonly used as an indicator of poor welfare and a divergence from natural behaviour [33]. They often occur as a result of poor welfare states such as confinement, lack of resources or stimulation, fear and frustration [24, 25]. For captive tigers, restraint for photos, contact with people and constant handling would all contribute to their potential development of stereotypies.

Observing and recording stereotypies can give a good indication of the situation but may not necessarily include all issues [22]. Correctly interpreting the behaviour is key, as the specific stereotypy may not be having a completely negative effect on the animal [33]. Studies have shown that animals showing stereotypical behaviours in a poor environment, actually had a higher welfare score and were generally calmer than other animals of the same species not displaying stereotypies [34]. This does not mean that the environment was a good one, but that within a stereotypy-inducing environment, stereotyping animals were better off as they were able to enrich their own environment and find a way to stay calm thereby creating a neutral welfare situation for themselves [22, 26]. It is important to remember that non-stereotyping animals must also be studied when assessing a poor environment [22].

It is also important to be aware that even when a poor welfare situation has been improved, it is very difficult for the random observer to know whether a stereotypy is continuing because of the present environment or is left over from a previous one. Therefore using stereotypy as a standalone measure of welfare will not yield accurate results. Recording stereotypical behaviours must be done in conjunction with other welfare measures and the observer must also understand the general behaviour of the species. Captive animal welfare assessments must also take into account the histories of the individual animals as this can effect the way they react to stimuli and enrichments [32]. As a result, the snapshot assessment performed by our researchers cannot use the evidence of stereotypy alone as a sign of poor welfare.

In a captive animal setting, stereotypies can be avoided if the animal has a stimulating early life [34] and this is where the importance of enrichment comes in.



WHAT IS ENRICHMENT?

Enrichment is an important part of captive animal husbandry. It is the provision of external stimuli with the aim of producing natural and both cognitively and physically stimulating behaviours in captive animals, as they would perform in the wild. This requires an in-depth knowledge of the species' natural environment [35, 36]. Enrichment aims to provide experiences that enable the animal to adapt to a changing environment, helping them to be active and alert, and with the intention of reducing any stereotypical behaviour.

There are many different types of enrichment that can be performed, each with different aims for the animal's welfare in mind, for example, enhancing behavioural, physical, cognitive or psychological well-being. However, the different techniques used are not mutually exclusive and can overlap. It is also important to note that whilst enrichment should be performed on a regular basis, the different methods should be varied so as not to cause habituation and instead to continuously stimulate the animals with the aim of increasing the length of time species-specific behaviours are performed.

Environmental Enrichment Devices (EED)

Objects, either natural (branches/logs/hay) or manmade (Boomer balls/tyres/piñatas), that can be used in some way by the animal.

Habitat Enrichment

The creation of an environment closely matching the animal's natural habitat such as providing different height levels, platforms, water sources, dens and hiding places.

Food Enrichment

Food should be offered in different ways to stimulate hunting/problem solving behaviours. It can be given as fresh/frozen, soft/hard etc and preferably different to what is usually provided. Specific treats can also be presented in a challenging way to also provide cognitive stimulation.

Behavioural Conditioning

This provides cognitive stimulation to increase the intellectual ability of an animal. Animals participate voluntarily in this type of training to keep up established behaviours or learn new ones.

Sensory Enrichment (of all five senses)

- Olfactory (smell) can be pheromones, prey/predator scents, spices or perfumes
- Tactile (touch) can be textured EED such as straw, soft blankets, burlap sacks or cardboard.
- Auditory (hearing) can include recordings of natural sounds or animal vocalisations.
- Visual can be multicoloured EED, movement of objects. For example using wind, line of sight to other animals or even mirrors.
- Gustatory (taste) can include food enrichment, flavoured sprays and/or drinks.

Social Grouping

This is the recreation of the same types of grouping that would be seen in the wild in order to facilitate grooming, territorial and mating behaviours.

THE ISSUE OF INBREEDING

Inbreeding is a sign that the welfare of the animals is not a priority. Many venues housing tigers around the world perform this practice in order to obtain some of the unusual colour variations seen in tigers. However, there are numerous side effects that are detrimental to the animal's health. Inbred mothers often produce a larger litter size and have good maternal instincts but the litter is more likely to have a poor survival rate [37]. After 1 year of age, longevity of the tigers is also reduced as inbreeding increases [37]. Inbreeding also causes more physical deformities and increases the likelihood of contracting a number of diseases [37], with white tigers being particularly prone. Some facilities take this a step further and cross-breed lions and tigers creating feline hybrids, again to produce a visitor-popular attraction. Many tourists incorrectly believe that breeding of colour variants or hybrids such as ligers, is being performed to save an endangered species or subspecies [38]. These hybrids and colour variants do not occur naturally and are considered to be the result of irresponsible breeding [39]. Public understanding of this issue could help to phase out the unnecessary and cruel breeding of these animals for profit.

COLOUR VARIATIONS AND HYBRIDS

White tiger - White tigers with black stripes are not a tiger subspecies, nor are they albino.

White tigers are Bengal or hybrid tigers homozygous (carrying two copies) for a recessive genetic mutation that gives them their white coloration and blue eyes. These have long been seen as something iconic and desirable but the truth is that white tigers are, for the most part, the product of inbreeding.

White tigers can occur in the wild but this is a rare occurrence. Whilst many look stunning, a large number are also born with severe deformities and are not put out on display [38].

Golden tiger - Orange tigers with light stripes carry two copies of a rare "wide-band" genetic variant, which suppresses black pigmentation in their stripes. Interestingly, this mutation also has the effect of making their fur softer.

Snow tiger - White tigers with light stripes are thought to carry two copies of each of the recessive genetic variants that white tigers and golden tigers carry. Though the genes have been identified, their interactions are not wholly understood.

Blue-eyed hybrid - Unknown as to why this tiger displays recessive gene blue eyes but still has the orange coat. She also has a white tail tip and is the only tiger our researchers have seen with this colouration.

Liger - Created by mating a male lion with a tigress, ligers are completely unnatural since the two species do not interbreed in the wild. The offspring suffer from many health issues and often display gigantism, growing to enormous sizes [38]. They usually have a shortened life span.



DEFORMITIES

Physical deformities can occur as a result of inbreeding [37]. Since many of the tiger venues visited are involved in irresponsible and prolific breeding, deformities of one kind or another were prevalent. One facility that our researchers visited had high levels of deformed tigers including those with clubbed feet, short back syndrome, arched spines and twisted necks. The staff did not appear to see anything wrong with these cubs (some of which were nearly a year old) and in fact proudly proclaimed that all of their tigers were, and continued to be, sired by the same father - reportedly 24 so far. This stud tiger was also rather strangely developed with vastly longer hind legs than front legs giving him a peculiar slanted silhouette. He also appeared to be suffering from paraphimosis (inability to retract the penis into its sheath). This is often caused by a birth defect where the orifice is too small, though it can also be acquired from causes such as trauma, infection and excessive sexual activity [40].

Strabismus (cross-eyes) is another common deformity that was seen throughout the captive tiger facilities our researchers visited. This is commonly but not exclusively linked to the white colouration in tigers. The recessive gene that controls white colouration also causes lighter pigmentation in the iris resulting in the blue colour. In addition, similar to the gene that afflicts Siamese cats, there is an increase in abnormalities in the visual pathways. Essentially the nerve fibres of the retina cross to the opposite side of the brain instead of remaining on the same side creating the convergence resulting in strabismus [41, 42], which can also occur in brown-eyed tigers.

There are also increased instances of cataracts and strabismus occurring in tigers, and other animals, when they are removed from their mothers at a young age and placed on a milk replacement formula. In some cases the milk formula lacks enough taurine causing cataracts to develop [43]. It is possible that both poor early nutrition and inbreeding are the cause for many of the tigers in Thailand's facilities being observed with strabismus.



THE VENUES

During February/March 2017 and April/May 2018, our researchers visited and re-visited a total of 38 facilities holding tigers in Thailand. There are a large number of private tiger collections around the country which it was difficult or impossible to gain access to at this time. Therefore only those facilities with public access were visited. Where possible, the updated numbers for private facilities have been included in this report.

For each facility visited, our researchers carried out a welfare assessment that incorporated the five domains [44] into each record. This included observations of any stereotypies, inbreeding, standard of enclosures, general husbandry and the forms of tourist entertainment provided, using a rating scale for each category. The data were then collated and used to create a numbering system for scoring the welfare provision at each facility, and our general conclusions are listed on page 18.

Researchers performed a thorough count of the tigers observed and also recorded the tiger numbers reported by staff on site. These were later compared to the recent reports given to the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) by the Thai government and were obtained from the report by the Environmental Investigation Agency (EIA) [45 and S Suresh 2017, personal communication, 7 February] and World Animal Protection (WAP) [15]. Suffice it to say the numbers between both reports, but also between observed and reported tigers, do not agree. In addition, numbers reported and observed by our For Tigers researchers do not match, with some facilities reporting fewer tigers than observed and others the same number in both years despite the presence of a large number of young cubs on each visit.



HOW MANY TIGERS?

The numbers below reflect what staff at the various facilities reported and the number our researchers saw for themselves at the 38 venues they visited.

**TOTAL NUMBER OF
TIGERS REPORTED BY
VENUE STAFF 2017**

1234

**TOTAL NUMBER OF
TIGERS OBSERVED BY
OUR STAFF 2017**

614

**TOTAL NUMBER OF
TIGERS REPORTED BY
VENUE STAFF 2018**

1345

**TOTAL NUMBER OF
TIGERS OBSERVED BY
OUR STAFF 2018**

665

The number of captive tigers is believed to be much higher, potentially being anywhere between 1450 - 2500 [46], since government facilities (such as those holding the remaining confiscated Tiger Temple tigers) and private zoos have not been included in these counts.

Many facilities had new cubs in 2018, yet reported similar or even identical numbers to those of 2017. This discrepancy in tiger numbers potentially demonstrates a lack of interest from staff, but in some cases it raises concerns as to where the older tigers from previous years are now.

Name of Tiger Facility	EIA '16 Reported	WAP '16 Reported	ForTigers'17 Reported	ForTigers'17 Observed	ForTigers'18 Reported	ForTigers'18 Observed
Safari World	124	7	76	36	100	36
Samutprakarn Crocodile Farm	58	3	30	23	25	25
Dusit Zoo	10	Unlisted	3	3	3	3
Pata Zoo	2	Unlisted	0	0	0	0
Ayutthaya Elephant Village	5	1	2	8	8	3
Mali-Salika Zoo *	200	Unlisted	108	Not Visited	100	Not Visited
Chokchai Museum	2	Unlisted	1	1	1	1
Sri Racha Tiger Zoo	424	350	480	152	480	156
Million Years Stone Park	90	90	80	53	80	56
Anachak Chang (Elephant Kingdom)	12	Unlisted	10	10	7	7
Nong Nooch Tropical Garden	8	Unlisted	10	6	8	6
Khao Kheow Open Zoo	Unlisted	Unlisted	17	16	13	13
Chiang Siam Park	3	3	1	1	11	9
Hua Hin Safari and Adventure Park	30	30	40	21	48	35
Hua Hin Tique Zoo	5	Unlisted	CLOSED	CLOSED	CLOSED	CLOSED
Hua Hin Zoo and Animal Park	4	Unlisted	0	0	0	0
Damnoen Saduak Tiger Zoo	24	24	25	25	30	31
Khao Pratap Chang Open Zoo	Unlisted	Unlisted	2	2	2	CLOSED
Samphran Crocodile Farm	3	2	1	1	0	Not Visited
Nakhon Pathom Municipal Zoo	Unlisted	Unlisted	0	0	0	0
Mr Chaiyaporn Wijitsophon Farm	24	unlisted	Not Visited	Not Visited	Not Visited	Not Visited
Tiger Temple	148	148	CLOSED	CLOSED	CLOSED	CLOSED
Safari Park and Resort	13	13	14	11	22	17
Bung Chawak Zoo	12	Unlisted	70	41	53	41
Lopburi Zoo	3	Unlisted	2	2	2	2
Khon Kean Zoo	12	Unlisted	N/a	4	4	4
Mukdahan Tiger Zoo & Farm**	Unlisted	Unlisted	Unlisted	Unlisted	42	Not Open
Star Tiger Zoo	Unlisted	Unlisted	6	6	6	6
Trakarn Tiger Zoo (Ubon Zoo)	17	Unlisted	18	17	CLOSED	CLOSED
Ubon Ratchathani Zoo	Unlisted	Unlisted	5	4	4	4
Nakhon Ratchasima Zoo (Korat zoo)	Unlisted	Unlisted	19	4	4+	4
Chokchai Farm Zoo	9	Unlisted	Not Visited	Not Visited	Not Visited	Not Visited
Samui Tiger Zoo	45	45	30	21	20	21
Namuang Safari Park	8	4	9	9	16	6
City of Nakhonsithammarat Zoo	1	Unlisted	0	0	0	0
Phuket Zoo	12	1	9	8	10	11
Phuket FantaSea	17	3	N/a	3	7	5
Tiger Kingdom Phuket	100	57	66	36	55	32
Tiger Kingdom Chiang Mai	49	49	50	34	41	27
Chiang Mai Night Safari	10	Unlisted	N/a	27	N/a	29
Chiang Mai Zoo	Unlisted	Unlisted	N/a	1	N/a	1
Mae Teang Sanctuary **	Unlisted	Unlisted	Unlisted	Unlisted	50	Not Open
Songkla Zoo	6	Unlisted	20	6	10	5
Diswilai Tiger Zoo	24	Unlisted	Not Visited	Not Visited	Not Visited	Not Visited
Dit Tiger Zoo	30	Unlisted	Not Visited	Not Visited	Not Visited	Not Visited
Private Zoo	6	Unlisted	Not Visited	Not Visited	Not Visited	Not Visited
Tiger Park @Pattaya	Unlisted	Unlisted	30	28	80	78
Thaithong Zoo	Unlisted	Unliisted	Unlisted	Unlisted	3	3
Total Number of Tigers	1550	830	1234	620	1345	665

* Zoo being closed with tigers moving to various facilities across the country including DNP

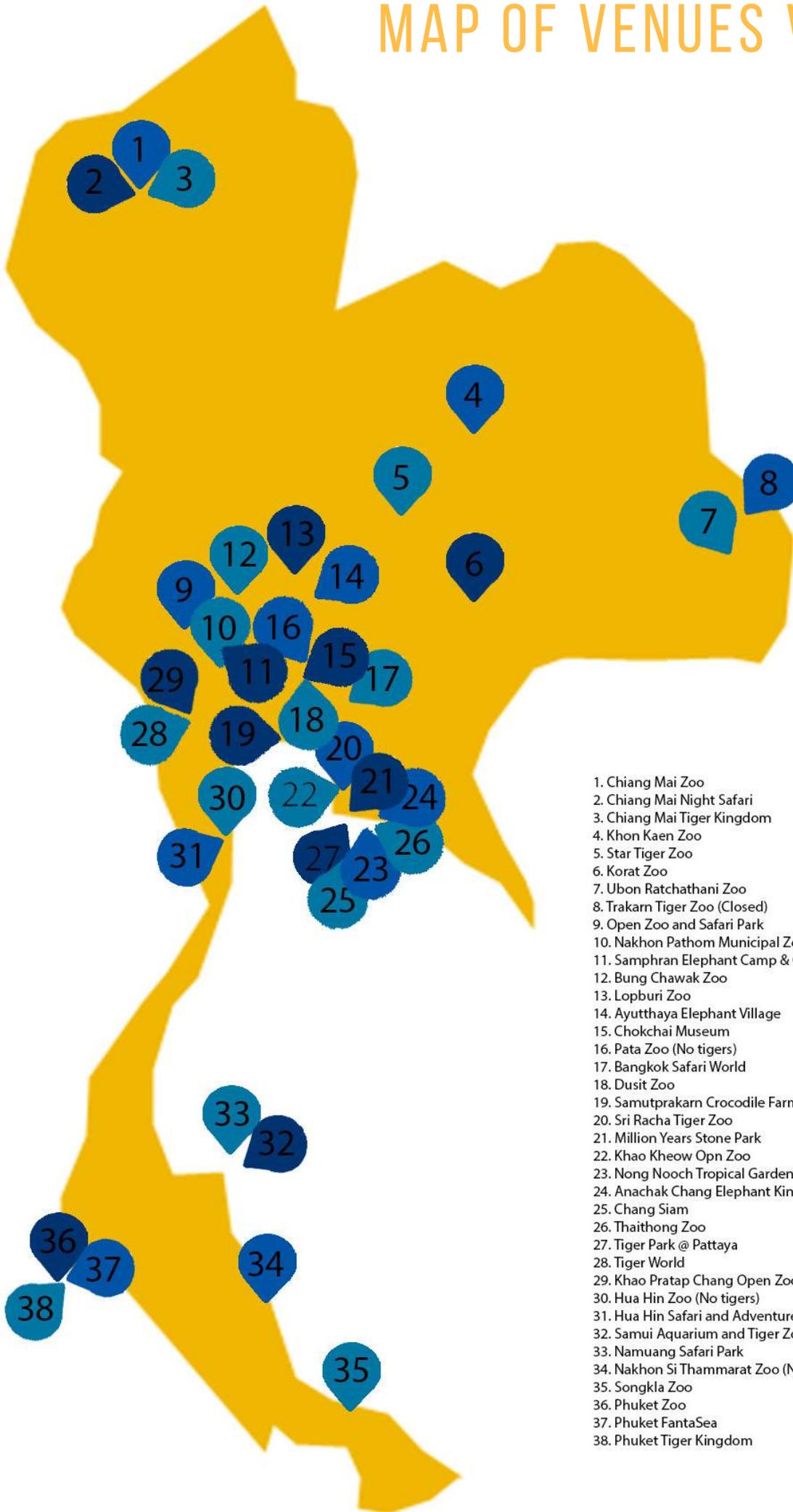
** Facilities holding zoo licenses and housing tigers but not yet open to the public

CLOSED refers to facilities no longer housing tigers - animals have been relocated to DNP facilities and their previous totals are not included in the final count

N/a denotes no staff found to ask reported number

Unlisted refers to facilities not mentioned in any report

MAP OF VENUES VISITED



1. Chiang Mai Zoo
2. Chiang Mai Night Safari
3. Chiang Mai Tiger Kingdom
4. Khon Kaen Zoo
5. Star Tiger Zoo
6. Korat Zoo
7. Ubon Ratchathani Zoo
8. Trakarn Tiger Zoo (Closed)
9. Open Zoo and Safari Park
10. Nakhon Pathom Municipal Zoo (No tigers)
11. Samphran Elephant Camp & Crocodile Farm (No tigers)
12. Bung Chawak Zoo
13. Lopburi Zoo
14. Ayutthaya Elephant Village
15. Chokchai Museum
16. Pata Zoo (No tigers)
17. Bangkok Safari World
18. Dusit Zoo
19. Samutprakarn Crocodile Farm
20. Sri Racha Tiger Zoo
21. Million Years Stone Park
22. Khao Kheow Opn Zoo
23. Nong Nooch Tropical Gardens
24. Anachak Chang Elephant Kingdom
25. Chang Siam
26. Thaithong Zoo
27. Tiger Park @ Pattaya
28. Tiger World
29. Khao Pratap Chang Open Zoo
30. Hua Hin Zoo (No tigers)
31. Hua Hin Safari and Adventure Park
32. Samui Aquarium and Tiger Zoo
33. Namuang Safari Park
34. Nakhon Si Thammarat Zoo (No tigers)
35. Songkla Zoo
36. Phuket Zoo
37. Phuket FantaSea
38. Phuket Tiger Kingdom

CRUEL ATTRACTIONS



38 public tourist attractions were visited

In 2018:

4 of the facilities no longer contained any tigers due to various circumstances e.g. Hua Hin Zoo's tiger confiscation by the government [47] or Nakhon Si Thammarat's loss during flooding.

Of the 34 facilities still open:

20 of them offered attractions deemed to be cruel – forcing unnatural behaviours and interactions causing stress.

14 of the facilities offered no interaction but had varying levels of welfare.

7 facilities declawed their tigers.

4 had cruel tiger shows forcing unnatural behaviour.

However, 6 had feeding or enrichment shows promoting natural behaviour.

Of the 34 facilities:

12 kept their tigers confined to concrete-floored cages with no access to natural areas.

14 had some more natural outside areas with a few enrichment elements, though not all tigers had access.

8 had fully enriched, natural areas following species-specific requirements.

Out of 665 observed tigers:

128 cubs (up to the age of 1 year) were observed across all facilities. A previous report suggested that with the projected number of breeding age tigresses and speed breeding practices, the number of cubs born per year could be as high as 250 – 375 [15].

75 white tigers.

8 snow tigers.

8 golden tigers.

6 ligers (not included in tiger count).



IN DEPTH:

SRI RACHA TIGER ZOO

LOCATION: Pattaya

NUMBER OF TIGERS REPORTED: 480

TIGER ACTIVITIES: Cub feeding and photos

Adult photos

Circus show

Shoot and Feed area

Sri Racha Tiger Zoo houses the largest reported captive tiger population in Thailand along with some of the worst conditions recorded by our researchers.

Treatment:

Many of the tigers were clearly starved in order to perform. The tigers residing in the "shoot and feed" area appeared undernourished and fought in order to gain food as it dropped from above after tourists shot at the target with a pellet gun. Weaker tigers lost out to their healthier cage-mates. Many of the tigers had small round injuries and our researchers witnessed staff taking pot shots at the tigers on occasion.

Previous reports [15] have claimed that the tigers in the circus show are also, on occasion, starved to work [15], particularly if they have not followed the trainer's wishes. Activities performed included climbing along rope, walking on hind legs, rolling over, begging postures and jumping through hoops of fire – none of which are considered to be natural behaviours despite claims from staff members to the contrary during the show. Food rewards and whips keep the tigers in line.

One adult tiger, Viggo, is the main photo prop tiger. He is restrained on a 1 foot chain. Bamboo sticks and small whips are used to keep him compliant for photos. Upon asking staff about him, our researchers were told he had been doing this for 9 years. His four canine teeth have been filed down. On one of the research visits, he was observed being hand-fed by staff. He had difficulty eating and often food fell from his mouth as he attempted to chew it. He was hit if he did not take the next bite.

Cubs are taken from their mothers at a very young age (a nursery is present), and placed in small cages throughout the day. When removed for bottle-feeding, the cubs are often dragged by the tail and manhandled into position on the tourist's lap.

Health:

Our researchers observed numerous injuries during the two visits, most commonly open tail wounds and tail tips missing.

A number of human inflicted injuries were observed, namely declawing and, in some instances, the removal of the canine teeth. This latter practice seems to have ceased with only the older tigers having been put through this.

Many tigers were undernourished, in some instances hips and ribs showed through prominently.

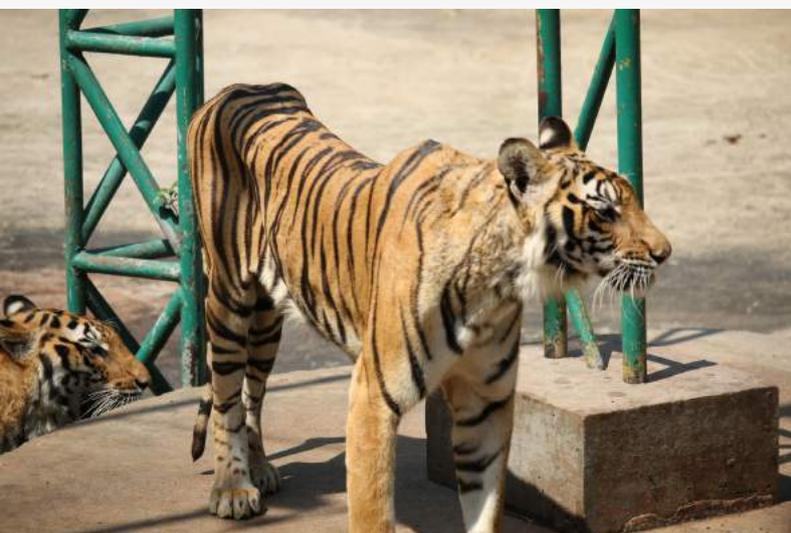
Housing:

All housing, whether cages or outdoor areas, had a concrete floor. As many as 12 tigers were observed in one cage, a space measuring approximately 10x4 metres.

Similarly the outdoor areas tended to hold up to 15 tigers - making them highly overcrowded and probably one of the reasons for the multiple injuries seen. Water was provided in all areas. Platforms and any enrichment items were completely lacking. In 2017, there were areas of double-stacked cages, where tigers could be seen on a second level with no access to an outside enclosure. The recent visit (2018) showed these cages to be empty.

Educational messaging:

Tigers were placed in unnatural environments with other species. Signs stated this practice was done to promote more relaxed and friendly tigers. Examples seen by our researchers over the two visits included: a sow confined to a crate whilst week old tiger cubs suckled alongside young piglets; a female tiger confined to a small glass fronted cage with older piglets; behind the scenes, another female was found in a small cage being fed alongside piglets, presumably being trained for this "job". There was also an exhibit that suggests tigers are from Africa with a tiger and a Kenyan man dressed in a faux leopard skin confined together in a small cage.





IN DEPTH:

MILLION YEARS STONE PARK

LOCATION: Pattaya

NUMBER OF TIGERS REPORTED: 80

TIGER ACTIVITIES: Cub photos

Adult photos

Million Years Stone Park has one of the highest recorded tiger populations in Thailand. This facility holds a growing number of tigers in poor conditions.

Treatment:

There were three adult tigers out on display for photos. Each was chained to a cobble-covered platform and appeared to stay there for the entire day. At one point, one tiger needed a bathroom break and the keeper simply held a scoop under his tail to collect the droppings.

Staff members informed our researchers that Toto, a 10 year old male, had been on the platform his entire life. For many years he was subjected to a rough handler who poked him in the side of the face with a bamboo stick in order to make him roar for photos. In November/December 2017, video was released [48] of this mistreatment and the handler was removed. Our visit in April 2018 confirmed this and although the new handler did not hit Toto, the tiger was fearful and aggressive. Roaring for photos was still required, and the new handler continues to hold a bamboo stick, but smacked this onto the platform near Toto's feet to get him to comply.

In 2018 cubs were now being brought out for photos as well. It appeared there was a litter of three, though only one was out at any one time. The other cubs were locked in a 1x0.5 metre cage. Staff appeared to enjoy playing with the cub but twisted its ears inside out, grabbed it by the back legs and manhandled it to sit on tourist laps. None of these actions appeared to be wantonly cruel, more a case of lack of knowledge.

Health:

For the most part, our researchers found that the tigers appeared healthy and well fed. However, water provision was an issue with a number of the bowls in cages being found empty. When staff were informed of this, no water was given. Some tigers were licking their empty bowls due to severe thirst.

Of the 8 snow tigers seen in 2018, 3 were at Million Years Stone Park. One had an eye infection that appeared to be going untreated. A number of the other tigers appeared to be limping due to the fact that they had been declawed, otherwise no other injuries were seen.

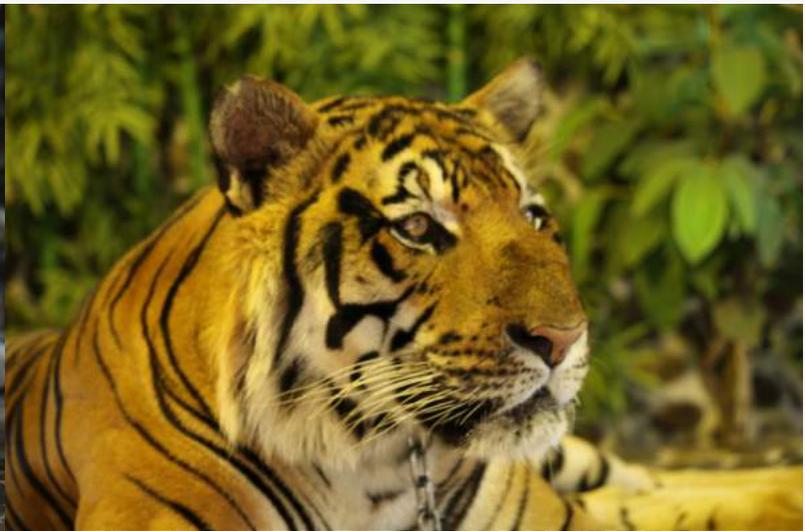
Housing:

Tigers were housed in groups of 1 - 3 per cage. On average, the cage size was around 4x3 metres. Flooring was either cobblestones or wood.

There were four outside areas, each having sandy substrate, a pond and logs. Although there were some tigers out, it was not clear if all the other tigers got the opportunity to explore these areas. It was noted that not all tigers would have easy access, since some cages were hidden at the far back of the facility and were standalone cages on stilts with no connection to the outside areas.

Educational messaging:

There was no educational signage whatsoever at this facility. There were 14 white and 2 snow tigers at the facility, which were displayed as being special, giving the impression that these colourations are acceptable.



A tiger with orange and black stripes is walking towards the camera on a paved path. In the background, there is a chain-link fence, a tree, and some metal structures.

IN DEPTH:

TIGER KINGDOM - CHIANG MAI & PHUKET

LOCATION: Chiang Mai and Phuket

NUMBER OF TIGERS REPORTED: 96 (both facilities)

TIGER ACTIVITIES: Photos with tigers of all age groups

Tiger Kingdom has grown into a franchise that is now the leader in offering tiger photo ops. However, both venues maintained a distinctly higher standard compared to that in other facilities offering these experiences.

Treatment:

Although tigers were subjected to photos with tourists, the witnessed handling by some staff was amongst the best our researchers saw in the country. Whilst all staff carried small bamboo sticks, these were rarely used, and even then were used to distract the tiger or, on occasion, used to turn the tiger's head. To get the tigers into good positions for photos, toys were used instead, both as distractions and to get the tiger moving, resulting in a much more relaxed and amenable tiger. Chiang Mai was by far the best at this, with staff at Phuket occasionally resorting to rather more forceful methods of changing a tiger's position. In one instance, our researchers did witness a tiger cub being dragged a good 10 metres by its tail in Phuket.

In general, the tigers were unafraid of humans and more likely to chuff (vocalisation used as a greeting) or respond in a positive manner. The Phuket facility was, however, worse than Chiang Mai in having smaller enclosures with a larger number of tourists.

Volunteer reports from earlier years have been less positive, with many more instances of physical abuse of the tigers being reported in a blog [49]. However, the writer of that blog has continued to work for the franchise and has publicly stated that conditions have vastly improved and continue to do so [50]. He also made reference to the sticks carried by staff as tools to distract rather than punish and defended the practice of removing cubs from their mothers in an effort to create a bond between tiger and keeper, in part to promote the chance for better public performance, but also to encourage habituation to humans allowing health and welfare checks to be less stressful.

Health:

Tigers all appeared to be in good health though some were a little overweight. However, staff were aware since this was noted in the charts attached to the cages.

There appeared to be on-site veterinary care, with two vet students on the premises during our researchers' 2018 visit to the Chiang Mai facility. No wounds, injuries or evidence of pain was noted in any of the tigers at either venue.

Housing:

Each tiger had its own cage although outdoor enclosures were shared. The set up allowed all tigers access to an enclosure, albeit of varying size. Cage size was standard at about 4x4 metres and each contained a waterbowl (always filled), wooden platform and concrete flooring. Enclosures were paved with stones though grass can grow through, and contained a large pool and trees, though the latter were protected with electric fencing preventing climbing or scratching.

Educational messaging:

Both facilities had excellent signage throughout including information regarding the different species and the colour variations that occur. A large proportion of the staff were knowledgeable. All cages had details about the tiger housed there, including name, age and microchip number.

Chiang Mai now offers a Keeper-For-A-Day programme, which offered in depth information and provided an excellent interactive experience demonstrating how to create and utilise enrichment items, the day-to-day care of a tiger and much more.

The Tiger Kingdom: Mae Taeng Sanctuary is currently being built [51] and when it opens will operate a no hands-on policy for tourists through promotion of the Keeper-For-A-Day option.



A photograph of a tiger climbing a tree trunk. The tiger is seen from behind, clinging to the bark with its paws. The tree trunk is thick and has several sections wrapped in a light-colored, fibrous material. The background is a dense forest of green trees and foliage. The image is part of a document layout, with a white text box on the left and a white text area on the right.

IN DEPTH:

ZOOLOGICAL PARKS ORGANISATION (ZPO)

LOCATION: Bangkok, Chiang Mai, Khao Kheow, Khon Kaen, Korat, Songkhla, Ubon Ratchathani

NUMBER OF TIGERS REPORTED: 40+

TIGER ACTIVITIES: Tiger feeding show

There are eight zoos run by the Zoological Parks Association (ZPO) across Thailand. Each of them maintains a welfare standard much higher than that of any other facility in the country, including those run by the government and the Department of National Parks. Funded by the Crown, these facilities are the standard against which all others in Thailand should be measured, and offer the most species-appropriate environments for all animals in their care.

Treatment:

Each facility operated a completely hands free programme with no interaction between either tourists or staff and the tigers. The tigers appeared relaxed and engaged in natural behaviours in their given environments. Only Chiang Mai, with the solitary tiger, showed evidence of stereotypy with continued pacing.

In most of the facilities, there was a form of enrichment show with staff feeding the tigers at specified times of the day. These involved a pulley system operated from outside the enclosure. Food was attached and the tigers could run, jump and climb to get the food. Large moats allowed the tigers to jump in after food and feeding poles allowed the tigers to climb. One of the facilities also offered a show demonstrating other animal behaviour culminating in a swim demonstration by a tiger and a tree climb. These shows were again carried out without human contact and the tigers appeared to be clicker-trained, as evidenced by the sounds coming from the sides of the enclosure. These shows seemed to be performed once or twice per day and though this is not necessarily accurate in terms of wild tiger feeding, these little but often feeding sessions with enriching food practices do serve to provide regular mental and physical stimulation.

Staff had no physical interaction with the tigers and were knowledgeable when questioned.

Health:

All tigers observed appeared healthy with no notable injuries, human or tiger inflicted. Correct diets appeared to be provided and there was a network of vets in place ensuring quality care. Ubon Ratchathani Zoo suffered a loss in April 2017 as one of their tigers ate tainted meat; an investigation is still ongoing into this matter [52].

Housing:

Our researchers were unable to view the off-display housing in any of the seven venues. The enclosures for display, however, were the best standard in the country offering a wide range of natural features including grass, trees and large ponds or moats that allowed the tigers to swim. Enrichment items included feeding poles and pulley systems, large platforms, climbing areas, roped trees and hanging toys of varying designs.

Educational messaging:

There was general educational material regarding species of tiger, habitat and more at all seven facilities. These facilities were notable in the fact that they had Bengal, Indo-Chinese and Amur tigers, all clearly distinct from each other. The only downside was that most of these facilities still had white tigers on display and did not outline the issues surrounding this colouration.

Most of the facilities operated the aforementioned tiger feeding show where they could demonstrate some natural tiger behaviour, further educating tourists on the ways that a wild tiger would more likely behave.

There were also many signs around the parks complete with information on trade and also requesting that if any misbehaviour by staff and visitors or issues with the animals were spotted, visitors should contact management to inform them.



IS THE FACILITY ETHICAL?

It can be hard to know whether a facility is worthy of a visit, especially in a different country. To this end, The Association of British Travel Agents has created a set of guidelines to promote good practice for both suppliers and providers of animal attractions [53]. There are a few things to look out for that can give clues as to whether the chosen venue has the welfare of its tigers at heart or whether it is simply out for money. Ask a few simple questions when looking at a facility and the answer is there:

Is it for conservation?

There are a number of factors that come in to play when answering this question. Firstly the tigers should not be hybrids - the subspecies of each tiger should be known, preferably recorded in a stud book if the facility is part of a registered breeding programme.

Any facility that houses unusual colourations in tigers is also not telling the truth if they state it is for conservation purposes (see The Issue of Inbreeding section).

Have the tigers been rescued?

Not all facilities are linked to conservation some involve rescue. If the animals are mostly adults, these may have come from a rescue. Ask about the histories of each tiger - maybe they have come from circuses or other exploitative venues.

Are there lots of cubs?

Having a large number of cubs is often a clear indicator that the facility is in it for the money and potentially practices irresponsible breeding, especially if the cubs are not housed with their mother. Facilities that are part of a breeding programme will usually only have a few cubs at any one time.

Can I interact with the tigers?

Generally, facilities that offer hands-on interactions are not keeping the welfare of the animals as a priority. Avoid facilities that offer shows where the tiger performs unnatural behaviours. However, be aware that not all facilities that only display animals have good welfare either.

What is the welfare like?

- Good welfare includes having a large species-specific living environment, places for the tigers to hide from the public, a range of stimulating environmental enrichments that promote natural behaviours and a proper diet. Behaviour indicative of good welfare includes pricked ears, interest in the surroundings, calm demeanor and friendly vocalisations such as chuffing.

- Poor welfare places the tigers in unnatural, inappropriate settings, often restrained and part of interactive tourist experiences. Poorly operated facilities will often have cages with concrete floors, no environmental stimulation and frequently a lack of access to water. Poor welfare can often be inferred from the behaviour the tiger displays to its keeper - baring of the teeth, ears back, flinching, cowering and snarling vocalisations all indicate stress and anger.

HOW CAN YOU HELP?

- Research the facility responsibly, with reference to the above questions
- If you choose to visit, write reviews of the experience
- Inform others via word of mouth
- Don't participate in any hands on interactions
- Don't post photos if you visit a poor facility
- Write to tour companies requesting they remove attractions with poor standards from their itineraries

CONCLUSION

The result of our research has shown that whilst there are some great facilities, such as the completely hands-free ZPO zoos, for viewing the majestic tiger, these are few and far between. The vast majority of the tiger tourist venues in Thailand encourage interaction on many levels with tigers, with little to no concern for the animal's welfare. In many cases this may be through a lack of knowledge rather than through wanton cruelty.

Of these interactive venues, the Tiger Kingdom franchises in Phuket and Chiang Mai and the recently opened Tiger Park in Pattaya do offer the best options for tourists who insist on a hands-on experience in terms of the way their tigers are treated. However, all operate in a similar fashion with regard to the removal of young cubs from their mothers, and all have clearly stated their intent to increase their captive tiger population, thereby perpetuating a system of tigers bred only to live in captivity. Imposing strict regulations on breeding in these facilities would help reduce suffering. We therefore do not recommend these facilities. Tiger Kingdom's move towards a more hands-free approach through its Keeper-for-a-Day programme is a positive step and this would be the way forward that we would hope all facilities would follow.

We are not advocating for any of these facilities to be shut down, as the government does not have adequate space, funding or resources to care for these tigers. Instead we wish to promote ethical animal experiences and to encourage tourists to push for increased welfare standards, thereby encouraging facilities to improve.

All photographs were taken by our researchers during their research visits in 2017 and 2018, with the exception of the Tiger Temple section where photos taken by our researchers date back to 2010.



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