

INDUSTRY NEWS • PRODUCTS • OFFERS

September 2020

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# Peregrine

## EXOTICS NEWS



THE TURTLE EDITION





# TURTLECLEAN 10 / 20

35%  
OFF

## FILTERS AND CARTRIDGES

- Highly efficient, low wattage filter design.
- Provides sufficient filtration for turtle tanks with up to 10 and 20 gallons of water.
- Mount vertically in the corner or horizontally for shallow tanks.
- Easy Open door to clean filter cartridges without removing the main filter from the water.



- Removes dirt and debris from your aquarium.
- Improves water clarity.
- Easy to clean/reusable.
- Activated carbon included.



Description	Code	Trade	RRP	Promo
ZM Turtleclean 10 Dlux Turtle Filter (40GPH) TC-22	CZT510	£16.10	£28.99	£9.42
ZM Turtleclean 10 Replacement Filter, PMC-22	CZT511	£3.33	£5.99	£1.95
ZM Turtleclean 20 Dlux Turtle Filter (60GPH) TC-23	CZT520	£19.44	£34.99	£11.37
ZM Turtleclean 20 Replacement Filter, PMC-23	CZT521	£4.72	£8.49	£2.76



Mentioning turtles to a reptile enthusiast is a bit like talking politics at a dinner party – things are likely to get messy rather quickly. The turtle trade and keeping hobby isn't without its issues, and the reptile trade has to hold its hands up to some degree as having been at least partly responsible. The species and numbers being imported and sold in the 80s, 90s and early 2000s are exactly those we are seeing pop up today, not only in rehoming centres and sanctuaries, but also in our local ponds, lakes, rivers and canals.

That said, it's also important to give credit to the trade where it is due. The reptile trade has worked hard to address the problems over the last decade or so and to ensure similar issues do not occur again. This month's magazine digs deep into the whys and wherefores of what happened, and also looks at what can be done to encourage responsible turtle retailing.

We also take a look behind the scenes at Lincolnshire Wildlife Park's new turtle sanctuary. If you haven't been to the Park, we wholeheartedly encourage you to do so. The work Steve and his team are doing there is remarkable. We also learn about a 'citizen science' which aims to collect data about Britain's free-range turtles, and learn what you and your customers can do to help. Plus we take a look at Zoo Med's world-renowned turtle greenhouse facility at their base in California.

It would be great to hear what you think on our Trade Only Community Facebook page.

Have a great month!

Chris Jones,  
Managing Director



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The true story of the turtle trade



### September offers at a glance

Inside front cover . . . 35% OFF ZOO MED Turtleclean filters and cartridges

4 . . . 10% OFF AQUARIUM SYSTEMS Sea Tests water testing kits

9 . . . 30% OFF EXO TERRA lights and domes  
30% OFF EXO TERRA compact top canopies

11 . . . 10% OFF VETARK Ark-Klens

13 . . . 10% OFF AQUARIUM SYSTEMS Jet filters and pumps

19 . . . 35% OFF ZOO MED Turtle Huts  
35% OFF ZOO MED lamps, domes and stands

20 . . . 10% OFF AQUARIUM SYSTEMS Paleo Sand  
30% OFF EXO TERRA Turtle Pebbles

25 . . . 30% OFF PROREP Java Reptile Branches  
40% OFF PROREP Plastic Hides

27 . . . 40% OFF AQUA SPECTRA Polyresin Decor

28 . . . 40% OFF REPSTYLE Polyresin Decor

32 . . . **NEW** EXO TERRA Bug Kits

Back cover . . . . . 20% OFF REPTILE SYSTEMS lamps and controllers



# Reptile industry news

The latest news from the world of reptile keeping



## Tail regeneration tales

We all know cats don't really have nine lives, but it's not too much of a stretch of the imagination to consider lizards are regularly being given another chance of life. While caudal autotomy is an unfortunate event in captivity, this useful 'tail-dropping' trick can save the life of a lizard in the wild.

More often the tail is completely lost, and most species will grow a replacement in its place. However, you'll occasionally see lizards with two regrown tails, and now and then, even more. Sometimes the original hasn't been fully shed and another has grown alongside. Other times the regeneration mechanism simply gets corrupted. Lizards can end up with twin tails, but other outcomes are even more bizarre, with multiple tails growing from the original stump.

One incident published by Ecological Montenegrina in 2015 described a blue-throated keeled lizard (*Algyroides nigropunctatus*) which generated three new tails after losing its original. Another highlighted an Argentinian black-and-white tegu (*Salvator merianae*) that grew six tails when the original was partially detached following an injury.

A recent study shows that caudal autotomy resulting in multiple tails happens far more frequently than we originally thought. Researchers combed through hundreds of records spanning over 400 years and 175 species for references to multiple tail-growth events. The study concluded that multiple-tail regeneration isn't rare at all, with as many as 3% of lizards worldwide estimated to have multiple tails.

## Peregrine news

### Welcome to Will



You might have seen our smart new videos on social media and in our emails. These are thanks to our new resident videographer and photographer Will Parkinson who joined us last month. Will studied marine and natural history photography at Falmouth University in Cornwall and was runner up in the Alamy Student Photographer of the Year competition. Will says "I am absolutely loving working with animals again, and especially as I am given free reign to lead my own projects to drive engagement."

It's great to have you on board, Will.

The latest news from the Reptiles and Exotic Pet Trade Association – protecting and supporting the responsible pet trade.



## Going to the Hamm or Houten shows next year?

The likelihood of any reptile shows happening soon is uncertain following the fallout from the Covid-19 pandemic. However, those hoping to attend shows in Europe anytime in the future need to be aware of the new post-Brexit regulations concerning the movement of CITES-listed animals.

Before Brexit, CITES animals could be traded and moved freely between all EU member states, with UK hobbyists and traders transporting animals without the need for import or export paperwork. From 1 January 2021, people wishing to transport or trade CITES-listed animals will require paperwork from the UK and the EU country on the other side of the transaction.

UK hobbyists and traders planning to sell CITES-listed animals in Europe will need export paperwork from the Animal and Plant Health Agency (APHA) in Bristol, as well as the necessary import paperwork for the EU country receiving the animals. Similarly, export and import paperwork from both agencies will be required for animals leaving the EU and entering the UK.

The new regulations have both positive and negative implications for keepers and traders. Hobbyists wishing to buy or sell CITES-listed animals at European reptile shows will essentially be prohibited from doing so, as it will be all but impossible to arrange the necessary paperwork ahead of time. To buy animals, hobbyists would need to know which species they wanted and who they were going to buy them from for both the seller and the buyer to arrange the necessary paperwork weeks in advance.

On the plus side, the dubious practice of 'flipping' of animals via these shows will also be largely eradicated due to the administration involved.

The consequences for traders will be, on the whole, positive, as CITES-listed animals will no longer be routinely available from European shows. Instead, these animals will likely be sourced through established wholesale and retail supply chains. It opens the doors for more sales through shops in the UK, as fewer keepers will be able to travel to Europe and bring back their desired animals on a whim. It also benefits UK breeders, and animals being bred and sold in the UK is a good thing for our industry its economy as a whole.





# SeaTests

10%  
OFF



Description	Code	Trade	RRP	Promo
AS SeaTest KH Alkalinity-100 Tests	1VAS001	£7.87	£16.99	£6.73
AS SeaTest GH Hardness-40 Tests	1VAS004	£7.87	£16.99	£6.73
AS SeaTest NO2 Nitrite-100 Tests	1VAS011	£9.25	£19.99	£7.91
AS SeaTest NO3 Nitrate-40 Tests	1VAS014	£9.25	£19.99	£7.91
AS SeaTest NH4 Ammonia-40 Tests	1VAS024	£9.25	£19.99	£7.91
AS SeaTest PO4 Phosphate-40 Tests	1VAS034	£9.25	£19.99	£7.91
AS SeaTest CA Calcium-40 Tests	1VAS044	£9.25	£19.99	£7.91
AS SeaTest MG Magnesium-40 Tests	1VAS054	£11.11	£23.99	£9.50
AS SeaTest PH-100 Tests	1VAS100	£7.87	£16.99	£6.73

Available in a variety of test type kits, Aquarium Systems SeaTests quickly measure water quality, allowing you find the best values vital to maintaining the overall well being and good health of your aquarium or pond and its inhabitants.

## The trouble with turtles

### The true story of the turtle trade

If you were to believe everything you read in the press and on social media, you might think turtles are the worst pet in the world. Animal rights groups are quick to cast aspersions focussed on welfare issues, invasive species concerns and the risks posed by zoonotic diseases, but are those accusations valid? And if so, what is the reptile trade doing about it?



A popular pet

Many people believe turtle keeping became popular because of the Teenage Mutant Ninja Turtle craze of the 1980s. However, as is the case with many of the aspersions thrown at the reptile trade, the facts don't appear to support the myth. We all remember those charming 'Heroes in a Half Shell' but, according to the Reptile and Exotic Pet Trade Association (REPTA), reptile wholesalers trading during this era reported no significant increase nor decrease in the sale of turtles during the time when the Teenage Mutant Ninja Turtles were popular. In reality, the worldwide reptile trade had been growing in earnest since the early 1970s and, by the mid-1980s, keeping turtles as pets was not at all unusual. It was therefore unsurprising to find turtles appearing in popular culture. Instead of turtle pets being made popular because of the TV show, it's more likely the show came about due to the popularity of turtle pets.

Invasive versus non-native

More recent legislation banning of *Trachemys scripta scripta* sp. in Europe and the UK is fraught with unintended consequences, and many trade and hobby specialists believe more effective regulations could easily have been implemented. The primary issue which caused bans to be enacted in the first place was concern about these species and subspecies becoming invasive. Unfortunately, the way in which recent regulations have been implemented has had entirely the opposite effect, encouraging more turtles to be released into the wild, not fewer – but more about that later.

*Trachemys scripta* sp. have become invasive in warm parts of Europe, such as Italy and Spain, and although they can be often found in the wild in the UK, their status is more accurately described as non-native. This is because *Trachemys scripta* sp. can thrive, but cannot extend their range or reproduce in the UK climate because our summers are not long or hot enough. While these turtles may breed and maybe even lay eggs, they wouldn't hatch. And if an animal cannot procreate it cannot be described as 'invasive', but is, instead, considered 'non-native'.

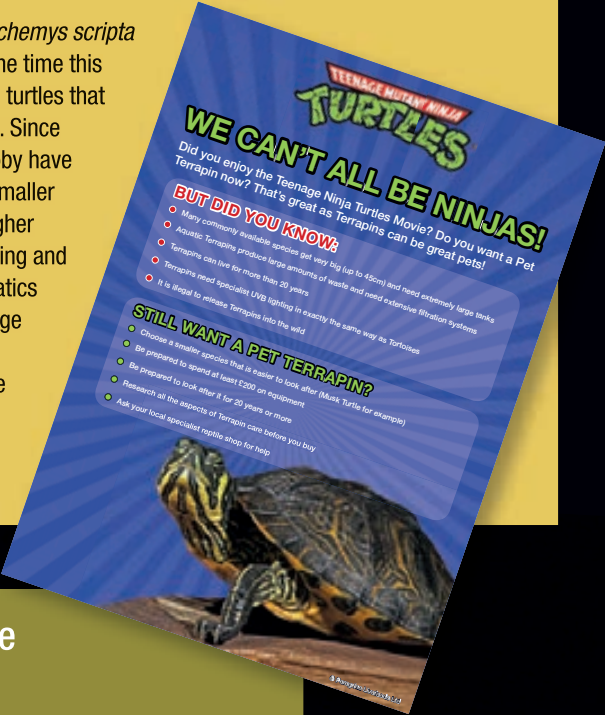
The first non-native turtle to be found in the UK was discovered in 1991 and a ban on all *Trachemys scripta* species and subspecies was implemented in 2016, with these animals being found in canals, rivers, ponds and lakes all over the UK and Ireland. By this time *Trachemys scripta* sp. were already being kept and bred in large numbers, so the new legislation was a little like closing the barn door after the horse had already bolted.

Cowabunga!

Reptile trade wholesalers and retailers braced themselves for an upsurge in turtle demand following the release of the Ninja Turtles franchise. Peregrine even produced a poster to discourage impulse buyers from purchasing turtles on a whim.

Today, turtle importation for pets is a tiny proportion of the trade, and a fraction of the numbers being imported in the 80s and 90s. Many of those appearing in the trade are captive-bred or captive-farmed, and few are taken from the wild. Despite this, the media and animal rights groups still seem to be unhappy about people keeping turtles, citing conservation, invasive species risks, zoonoses and welfare issues as the primary means of denigration. Indeed, around the globe, the sale of turtles for pets is shrinking due to increased legislation.

In 1997, the red-eared terrapin (*Trachemys scripta elegans*) was banned in the EU. At the time this species made up the majority of the turtles that were imported into the UK pet trade. Since the ban, trends in the UK reptile hobby have gradually favoured different, often smaller turtle species which command a higher price and, therefore, a more discerning and committed keeper. Instead, the aquatics industry has reportedly imported large numbers of *Trachemys scripta* and other large turtle species, with some estimates citing as much as 95% of the turtle trade being facilitated through the aquatics industry.



Invasive vs non-native

The Convention on Biological Diversity definitions

INVASIVE ALIEN SPECIES (IAS)  
Species whose introduction and/or spread outside their natural past or present distribution threatens biological diversity.

NON-NATIVE SPECIES  
A species, subspecies or lower taxon, introduced outside its natural past or present distribution.

Should turtle keeping be banned?

No, of course not. Turtles make great pets and many people are eager to provide these animals with high levels of care and husbandry. However, the situations which resulted from the 'stack-'em-high, sell 'em cheap' model of selling *Trachemys scripta* sp. in the 90s and early 2000s has led to calls for all turtles (and indeed all reptiles) to be banned.

Many of the organisations which seek a ban on reptile keeping claim it is justified by research, but a closer look at the arguments finds them to be littered with false narratives about reptile keeping. Invasive species concern is just one of the means of attack which animal rights groups use in the push to ban turtle keeping. Locality specific regulations to stop invasive species is, of course, sensible. However, it has been shown that blanket European bans are unnecessary and often counter-productive. Nevertheless, animal rights groups are eager to implement bans at any cost and the accusations raised to do so are manifold.

Salmonella and other zoonoses

Another argument frequently raised against turtle keeping is disease transmission, usually citing salmonella as the main risk. This aspersion is the darling of the media and is almost always raised when the topic of turtles or reptile keeping is discussed. One of the reasons why this claim is so common is that those who are against keeping turtles as pets work hard to ensure that the press is kept well fed with anecdotal stories wherein reptiles are linked to salmonella outbreaks, with the apparent goal being to make the public fearful.

While turtles and other reptiles do indeed carry salmonella, the risk to keepers is easily negated with basic hygiene practises, such as hand washing. Nevertheless, the subject isn't going away. One recent salmonella case in the United Kingdom was reported to have been caused by a pet reptile. However, it was later discovered that the patient was never in contact with a reptile. Instead, she had eaten chocolate which had been recalled due to a salmonella, which is, incidentally, the same strain as can be caught from reptiles. Of course, the correction was never published in the news media which first reported the story as reptile related.

The case to support the salmonella risks associated with reptile keeping suffered a further blow when an animal rights group in the UK offered a 'no win – no fee' offer of legal representation to anyone who had contracted salmonella following a visit to a reptile show. The campaign piggybacks a 'research paper' published by the same animal rights group which claimed that reptile show venues were a hotbed for infections. To our knowledge, the offer was never taken up by any reptile show-goers.

In the United States, retailers are not permitted to sell any turtle under four inches (the so-called 4" rule), which effectively limits the sale of young turtles. The origin of this law is difficult to discern, but it likely came about as a way to prevent children from placing turtles in their mouths. It's difficult to see why turtles are targeted by this type of legislation when unsanitary practises with any animal could cause disease transmission – often with more severe consequences.

Zoonoses comparisons  
No matter the species, all pets can carry potential zoonotic diseases.

Dogs can transmit rabies, Lyme disease, toxoplasmosis, roundworms, ringworms and sarcoptic mange – better known as scabies.

Cats transmit an even longer list of zoonoses. Here are just a few: ringworm, feline conjunctivitis, pasteurella, salmonella, bartonellosis (cat scratch fever), helicobacter pylori, toxoplasmosis, and tuberculosis.

Horses can transmit rabies, brucellosis, leptospirosis, Lyme disease, EGE and HE, equine encephalomyelitis, salmonellosis, cryptosporidium parvum, hendra virus, MRSA, anthrax and glanders.

Welfare  
Mistreatment and neglect is not a major feature in the turtle keeping hobby, or reptile keeping as a whole. Evidence from the UK's largest reptile rehoming facility demonstrates that neglectful lack of care is rarely the problem. Instead, overindulgence seems to be the main affliction.

Approximately 30% of reptiles taken in at the National Centre for Reptile Welfare (NCRW), for example, are obese. These animals are not so much 'neglected' in the way most people would commonly perceive neglect, but we could describe the keeper's 'over-love' and overfeeding as a different kind of ignorant neglect because the animal's nutrition requirements are being exceeded. Information provided by the NCRW suggests that these animals go on to thrive in new homes where keepers are better informed about feeding and other husbandry considerations. Turtles are no exception. ➤





Trade responsibility

There's no getting away from the fact that the reptile trade and, latterly, the aquatics trade, messed up when it came to turtles. Had the trade taken action sooner to stop the sale of cheap and potentially invasive species, this would have prevented or greatly reduced the free-range turtle issues we see today. While, in the case of other species, the reptile trade has a track record of self-regulation which has largely negated the need for legislation, the pet industry's efforts to address the release of turtles into the wild came far too late.

In 2011 the UK reptile industry held a meeting to discuss the trade in turtles, predicting further legislation was on the horizon which would not only negatively impact the reptile industry but the aquatics industry too. The meeting proposed a moratorium, stopping the importation of all turtles for one year and then, later, bringing certain, more suitable species back into the trade at a higher price, thereby eliminating the 'disposable pet' syndrome. Unfortunately, the aquatics industry wasn't interested and continued to import turtles. Following the ban of *Trachemys scripta elegans*, the trade simply shifted over the next few years to *Trachemys scripta scripta*, and the problems persisted.

By 2016 *Trachemys scripta sp.* were known to be invasive across large areas of Europe and, predictably, the EU banned the importation of the entire species. This had minimal effect on the reptile trade which had by then seen this species fall from favour. More specialist species were, by then, in vogue and for sale in pet shops all over the UK. Unfortunately, the aquatics industry has moved to import Florida Cooters (*Pseudemys sp.*), a species which grows to be even larger than *Trachemys*. The EU has yet to raise an issue with *Pseudemys* but there's little doubt that this species, and likely several others, will eventually be added to the banned list.

The rehoming and rescue problem

Adding yet more complications to the turtle issue is the fact that the laws banning turtles are written in such a way that these creatures cannot be easily rehomed or rescued. In 2018 the EU created legislation which meant if you already owned a banned species of turtle you were allowed to keep it, but you were not allowed to move, breed, sell, or rehome it. For any turtle owner needing to part company with their turtle, this new legislation caused a monumental problem, with unintended consequences which were exactly what the legislation aimed to avoid in the first place. Sadly, this lesson has not been learnt and new species added to the IAS list are still subject to these same issues, recreating the problem again and again.

The short story is that the legislation designed to stop turtles being released into the wild, was actually encouraging keepers to release their turtles into the wild. The flaw in the law can be pinpointed to the restrictions faced by rehoming centres and sanctuaries. The vast majority of these organisations could no longer accept any banned species of turtle, as the law forbade them from rehoming these animals with new keepers. The law expressly forbids this, unless the new keeper or organisation was properly licensed – and most were not. And while it is possible to acquire a licence to take in banned species, this would not be an option for the vast majority of rehoming facilities as they would need to keep the animals until the end of their natural life.

It sounds like a complicated situation, and it is – the result being a lack of facilities which are willing to take in turtles. Facilities which were once rehoming turtles in the past have since stopped, because the turtles cannot be rehomed after entering.

The situation leaves keepers needing to rehome their animals with three options, all of them either illegal or unpalatable:

- Hand their pets over to authorities who will then euthanise the animal
- Sell or gift their pet to someone else
- Release their pet into the wild

Under these circumstances it is no surprise to find that many turtles are released into the wild as private owners are not willing to have their family pet euthanised – and rightly so. Instead, many will give their turtle what they perceive to be a fighting chance by releasing it into the local pond. It's not right, and it's not good, but it's quite understandable.

The situation is a perfect storm of unregulated and irresponsible trade, coupled with ineffective and poorly implemented legislation which was too restrictive and, unfortunately, far too late to the table. So, what are we to do now? ➤



The Exo Terra Glow Light gives you the versatility of placing heat and/or light sources on your terrarium where needed. The device is sturdily constructed, with a metal reflector, heat resistant ceramic socket, and a spring-loaded swivel clamp. The inside of the reflector is coated with a highly reflective luminous coating that continues to glow long after the lamp is turned off.



Perfect for use with Exo Terra Terrariums, its small size fits neatly on the top screen cover. The highly polished aluminium reflector increases light, UVB and UVA output by up to 100%! The ceramic socket can accommodate either compact fluorescent bulbs or incandescent bulbs. Combine multiple fixtures with specific light bulbs to create the ideal lighting system.



Description	Code	Trade	RRP	Promo
ET Glow Light/Reflector Sml 14cm, PT2052	LHG014	£16.44	£29.59	£8.22
ET Glow Light/Reflector Med 21cm, PT2054	LHG021	£18.33	£32.99	£9.17
ET Glow Light/Reflector Lge 25cm, PT2056	LHG025	£21.67	£38.99	£10.84
ET Light Dome Fixture 14cm, PT2055	LHG114	£15.67	£28.19	£7.84
ET Light Dome Fixture 18cm, PT2057	LHG118	£17.00	£30.59	£8.50
ET Bracket for Light Domes, PT2223	LHG150	£10.89	£19.59	£5.45

LIGHT BRACKET

The Exo Terra Light Bracket is designed to suspend the Exo Terra Light Dome or other types domes or wire fixtures above any Exo Terra Natural Terrarium or other glass terrarium securely.



The Exo Terra Compact Top Canopy is a compact fluorescent terrarium canopy designed for use with the Exo Terra Glass Terrarium. This easy-to-install canopy accommodates compact fluorescent bulbs or low wattage incandescent bulbs.



Description	Code	Trade	RRP	Promo
ET Compact Nano Canopy 20cm, PT2224	LHC020	£17.78	£31.99	£8.89
ET Compact Top Canopy 30cm, PT2225	LHC030	£19.44	£34.99	£9.72
ET Compact Top Canopy 45cm, PT2226	LHC045	£26.94	£48.49	£13.47
ET Compact Top Canopy 60cm, PT2227	LHC060	£32.94	£59.29	£16.47
ET Compact Quad Canopy 90cm, PT2228	LHC090	£51.11	£91.99	£25.56



Turtle rehoming stats

The table here shows the turtles received by the National Centre for Reptile Welfare since August 2018. While 374 animals might seem a lot, it is a tiny fraction of the numbers imported and bred in the UK each year. Aquatic wholesalers continue to import thousands of specimens each year, and more are sold via the reptile trade.

Another encouraging point to note here is the variety of species which find their way to the NCRW. Many of those listed are uncommon, desirable and valuable – which says something significant about the trade and the type of people keeping and rehoming turtles. Instead of simply selling these valuable animals, keepers are more concerned with ensuring their pet goes to a good home. Also, the numbers we see for each species don’t support the notion that all turtles are a significantly problematic pet, as most species are present in single-figure numbers.

Diving deeper into the numbers helps to demonstrate how pet trends have changed over the years. The red-eared terrapins (*Trachemys scripta elegans*), which were prolifically imported and kept in the 1990s, are now rarely seen – thus the numbers coming into NCRW are relatively low. Yellow bellies (*Trachemys scripta scripta*), the species which became popular when red ears were banned, still make up a fair percentage of the animals brought into the Centre. The species which subsequently took over is the musk turtle (*Sternotherus odorous*). This species is still popular today which explains why these feature highly in the league table of animals which turn up in rehoming centres.

It’s interesting to note that while musk turtles are still popular and available today, they rank lower than yellow bellies in terms of how many enter the NCRW. This could be because they are difficult to find in the wild. After all, they bask less than *Trachemys*, or it could be because they are less hardy and do not fare as well in the British climate. But the most likely reason, however, is that today’s retailers are more discerning about who they will sell to and ensure that new keepers are prepared to care for their turtles properly. Add in the fact that musks need a far smaller enclosure than *Trachemys*, we can see that turtle keeping has come a long way since the 1990s.

Finally, it is worth remembering that these statistics come from the largest specialist-reptile rehoming facility in the country. If the turtle welfare, invasive species or zoonotic diseases were a major issue, we’d see evidence of it at the NCRW first.

SPECIES		QUANTITY
Spiny softshell turtle	<i>Apalone spinifera</i>	1
Fly river turtle	<i>Carrotochelys insculpta</i>	1
Spotted turtles	<i>Clemmys guttata</i>	3
Mata mata	<i>Chelus fimbriata</i>	2
Common snapping turtle	<i>Chelydra serpentine</i>	5
Western painted turtle	<i>Chrysemys picta</i>	4
Asian leaf turtles	<i>Cyclemmys dentata</i>	2
New Guinea snapping turtle	<i>Elseya branderhosti</i>	1
Pink-bellied side-necked turtle	<i>Emydura subglobosa</i>	4
European pond turtles	<i>Emys orbicularis</i>	3
Map turtle	<i>Graptemys geographica</i>	22
False map turtle	<i>Graptemys pseudogeographica</i>	17
Mississippi map turtle	<i>Graptemys p. kohni</i>	2
Asian giant pond turtles	<i>Heosemys grandis</i>	2
Red cheeked mud turtle	<i>Kinosternon cruentatum</i>	2
White throated scorpion mud turtle	<i>Kinosternon scorpoides albagulare</i>	2
Mud turtle	<i>Kinosternon subrubrum</i>	2
Northern snake-neck turtle	<i>Macrochelodina rugosa</i>	2
Alligator snapper	<i>Macrochelys temminckii</i>	2
Caspian turtle	<i>Mauremys caspica</i>	1
Spanish pond turtle	<i>Mauremys leprosa</i>	2
Chinese pond turtle	<i>Mauremys reevesii</i>	9
Balkan pond turtle	<i>Mauremys rivulata</i>	1
Asian striped necked turtle	<i>Mauremys sinensis</i>	4
Gibba turtle	<i>Mesoclemmys gibba</i>	1
South American toad headed turtle	<i>Mesoclemmys nasuta</i>	2
Chinese softshell turtle	<i>Pelodiscus sinensis</i>	6
African helmeted turtle	<i>Pelomedusa subrufa</i>	4
West African mud turtle	<i>Pelusios castaneus</i>	3
West African black turtle	<i>Pelusios niger</i>	2
Twist neck turtle	<i>Platemys platycephala</i>	1
Geoffroy’s side-necked turtle	<i>Phrynops geoffroanus</i>	1
River cooter	<i>Pseudemys c. concinna</i>	23
Florida cooter	<i>Pseudemys c. floridana</i>	7
Hieroglyphic river Cooter	<i>Pseudemys c. hieroglyphica</i>	2
Northern red-bellied cooter	<i>Pseudemys rubriventris</i>	1
Amazon River turtles	<i>Podocnemis unifilis</i>	2
Beal’s pond turtle	<i>Sacalia beali</i>	1
Razor backed musk turtle	<i>Sternotherus carinatus</i>	8
Loggerhead musk turtle	<i>Sternotherus minor</i>	9
Musk turtle	<i>Sternotherus odorous</i>	87
Three toed box turtle	<i>Terrapene carolina triunguis</i>	1
Cuban slider	<i>Trachemys decussata</i>	3
Red eared turtle	<i>Trachemys s. elegans</i>	16
Yellow belled turtle	<i>Trachemys s. scripta</i>	93
Cumberland slider turtle	<i>Trachemys s. troostii</i>	5

National Centre for Reptile Welfare  
turtle intake 1 August 2018 – 31 July 2020

Total 374

Challenges and solutions

We, as a trade, should not be looking to sanctuaries and rehoming centres to solve this problem. These facilities are almost invariably full and stretched to capacity, so these options should ideally be reserved for serious cases in need of long-term support. Instead, we need to consider the reasons why people are rehoming their pet turtles so we can work to mitigate these issues.

The trade can make a good start by providing sufficient information to prospective keepers about the care needs, equipment requirements and lifespan of these animals. And this needs to apply to the whole pet trade, not just the reptile sector which has largely got its house in order.

This obvious step aside, the most frequent reason why keepers need to rehome their turtles today is due to moving house. Whether it’s the loss of or acquisition of a new job or a domestic upset, 80% of turtles coming into the NCRW are from owners moving into accommodation which does not allow pets. It’s a big problem, and one which is becoming more frequent.

The Centre’s statistics show that the average turtle owner has had their pet for at least six years. More often than not, keepers will attempt to sell their pets with little luck, often dismayed at the lack of knowledgeable enquiries they receive from potential purchasers.

Many times, rather than risk the welfare of their pet, they will try to give it to a rescue. And the trouble with that is the few rescues which will accept turtles are quickly filling up with animals. These charities, which rely on donations from the general public, were under some strain before Covid-19 stopped their fundraising in its tracks. Relying on sanctuaries and rehoming charities is not a viable solution for the long-term support for these relatively long-lived pets. ▶



# Ark-Klens




**Ark-Klens** is a safe and efficient cleanser, disinfectant and deodoriser.

At the recommended dilutions **Ark-Klens** is non-toxic, non-corrosive, non-staining and non-irritant.

Recommended for the routine cleansing and disinfection of animal housing (cages, hutches and vivarium), food dishes, drinking bowls and work surfaces.

Description	Code	Trade	RRP	Promo
Vetark Ark Klens, BULK, 1 Litre	VD010	£14.99	£26.99	£12.14
Vetark Ark Klens, Ready-to-use, 500ml	VD012	£4.44	£7.99	£3.60





Responsible retailing

While we can applaud today’s reptile trade for conducting a far more responsible retail strategy than it has in the past, it is still important to press home the fact that retailers must ensure they do a good job of informing purchasers about the needs of their turtle and the long-term requirements and cost of ownership. We need to look beyond the short-term sale and develop an approach which considers the whole life of the animals we are selling, and that should include what the keeper does with their pet if they can no longer care for it.

We must engage with the customer for the entire time they own the animal, from point of sale to the time when the animal dies. We must ensure that prospective keepers are qualified with the knowledge and skill set required to create an environment where the turtle can thrive and not just survive being kept in captivity. And we need to be judicious and forward thinking about the type of animals we stock, and who we sell those animals to.

Less impulsive

While impulse-bought turtles were once a major factor in the work of rehoming centres and sanctuaries, this has largely become an obsolete issue as stores became more discerning about who they sold turtles to. This is now even more tightly controlled since the recent introduction of AAL legislation, which requires retail sellers in the United Kingdom to provide care sheets detailing the long-term requirements of the animals they are selling.

There’s a place in the trade for most species of animal. There are people who could and would look after a red ear or yellow belly very well indeed, but that’s not everyone, and we need to be a force for good to ensure prospective customers end up with animals they are suited to keeping. It’s a principle which pays out in the long term while seeming like a lost sale in the short term, but it’s the only way to protect our hobby and our trade into the future. Only then can we consider ourselves responsible retailers. ■

Rebranding turtles

“There are small species that can be kept in reasonably small-sized enclosures, but even those species that do get big can be accommodated.

Just because they get big and need relatively large enclosures and require some significant initial expenditure on the setup – that doesn’t mean these species aren’t good pet options. It can be done. Just look at how many koi keepers there are – how much nicer would a group of turtles be in one of those big koi setups? We’ve seen turtles make great pets but, like all animals, they have needs and challenges that keepers need to be aware of.

In the same way that there’s now a trend for keepers to make outside areas for their tortoises, this will be almost certainly become the case for turtles, I believe. And that’s a wonderful thing. It’s a good way to solve many turtle-related keeping issues, even if turtles are only outside for the summer.”

Stuart Worth  
Livestock procurement,  
Peregrine Livefoods



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NewJet Filter  
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MaxiJet  
500 / 1000



MaxiJetWave  
1000 / 2000



MaxiJetMicro

Description	Code	Trade	RRP	Promo
AS Maxi Jet Micro	1CAJ001	£9.72	£20.99	£8.31
AS Maxi Jet 500	1CAJ005	£10.64	£22.99	£9.10
AS Maxi Jet 1000	1CAJ010	£11.57	£24.99	£9.89
AS Maxi Jet Wave 1000	1CAJ110	£13.88	£29.99	£11.87
AS Maxi Jet Wave 2000	1CAJ120	£15.74	£33.99	£13.46
AS New Jet 400	1CAJ204	£8.33	£18.99	£7.12
AS New Jet 600	1CAJ206	£12.28	£27.99	£10.50
AS New Jet 1200	1CAJ212	£16.66	£37.99	£14.24
AS New Jet 2400	1CAJ224	£30.26	£68.99	£25.87
AS New Jet 3500	1CAJ235	£36.84	£83.99	£31.50
AS New Jet Internal Filter Small	1CAJ291	£9.25	£19.99	£7.91
AS New Jet Internal Filter Medium	1CAJ292	£10.18	£21.99	£8.70
AS New Jet Internal Filter Large	1CAJ293	£12.96	£27.99	£11.08
AS New Jet Wave Nano 900	1CAJ409	£13.15	£29.99	£11.24
AS New Jet Wave Nano 2200	1CAJ422	£14.91	£33.99	£12.75
AS New Jet Wave 5000	1CAJ435	£26.75	£60.99	£22.87
AS New Jet Wave 9000	1CAJ439	£32.45	£73.99	£27.74



# Lincolnshire Wildlife Park

## The National Turtle Sanctuary

You'll no doubt be aware of the countless turtles which inhabit the ponds, lakes, canals and rivers of the UK's inland waterways. Recent legislation has not only made the rehoming of these animals complex and unlikely, but also caused more turtles to be released into the wild. With registered rescue and rehoming centres already reaching saturation point, a long-term solution was needed. Thankfully, sanctuary specialist Steve Nichols from Lincolnshire Wildlife Park was ready to step up to the mark.

"The National Centre for Reptile Welfare's social media feed was starting to worry us," said Steve Nichols, the CEO of Lincolnshire Wildlife Park which hosts one of the world's largest parrot sanctuaries. "We've been here before and we were noticing the same red-flag warning signs we experienced when we set up the National Parrot Sanctuary in 1995.

The NCRW was established in 2018 and quickly built a reputation as the UK's reptile rescue and rehoming specialists. While the Centre has received a bewildering array of reptile species in the two years it has been open, a few are proving to be particularly problematic, because of both the numbers being received and the scarcity of new homes available. When asked which animal presents the biggest challenge for the Centre's rehoming efforts, the answer is unquestionably turtles.

### The Scottish prototype

The turtle rehoming issue was apparent as far back as 2010 before the NCRW was even built. A partnership project developed by REPTA and the pet-friendly Scottish Society for the Prevention of Cruelty to Animals (SSPCA) resulted in a modest turtle sanctuary being built in 2013 near Aberdeen. Resembling a large-scale agricultural poly-tunnel, the sanctuary is able to accommodate up to 40 turtles in the semi-outdoor facility. Chris Newman, NCRW's chief executive, realised this kind of sanctuary could work wonders if it could be copied on a slightly larger scale.

Since 2018 the NCRW has received almost 400 turtles. It is a rehoming centre, not a sanctuary, so it is not equipped to care for animals long-term. Each animal which enters the Centre must eventually leave for a new home. While certain turtle species are easy enough to rehome, most of those bought to the Centre are the relatively large species which are banned from trade, making it almost impossible to rehome them. As the number of turtles being bought to the Centre increased, the suitable options for rehoming them were quickly being exhausted. The project was reaching its saturation point.

A plan to address the escalating situation was desperately needed and that's where Steve at Lincolnshire Wildlife Park came in. ►

### The National Turtle Sanctuary

When completed, it will offer a permanent home for an estimated 2000+ rehomed and rescued turtles.



Stage 1

The plan

“I’d arranged a meeting with Lincolnshire Wildlife Park and hoped that it would sow the seed for a similar facility there,” explained Chris Newman. “But I wasn’t ready for the enthusiastic, no-fuss response I received.”

The influx of animals which are difficult to rehome is something Steve had seen happen before as part of his parrot rehoming project, and he knew exactly what had to happen next. Instead of a protracted negotiation about logistics, finance and operations, Steve simply said “Sod it, let’s do it!”

By the summer of 2019 the pair had developed a plan to build the National Turtle Sanctuary. Over the next four months, the Park provided enough space to accommodate 30 animals, thereby relieving the immediate pressure on the NCRW’s facilities, which was fast approaching turtle overload.

Stage 2

Quarantine and introduction pods

The next step was to build three introductory pods which could be used to perform basic quarantine. Each turtle which enters the centre is first sent to the Park’s hospital unit where it is weighed, health checked and, if necessary, microchipped and data recorded. From there the animal is put into a small, shallow, secluded pond which is well planted and off display, so the turtle can settle in peace. After three days it is removed and checked again before being relocated to one of the three introduction pods.

Each of the three pods is self-contained and contains no more than 10 turtles. Water quality is monitored to manage pH and nitrate levels during the animal’s subsequent 30 day stay. “We have a strict head-count policy, where only a specific number of animals will be accommodated within a set volume of water,” says Andy Ferguson, the LWP’s resident herper. “This setup, while being a little more wild and free than the introductory pods, still allows us to monitor the animals we hold there. It’s a bit of a halfway house.”

Stage 3

Encounter pond

When a turtle has spent around four weeks in the quarantined introductory pods, they can then be moved to the ‘encounter pond’ which has already been a feature at the park for the last seven years. The pond is part of an aviary which spans over 7000 cubic metres in size and is home to approximately 150 free-flying parrots. The parrots routinely interact with visitors who enter the aviary, often perching on heads, shoulders and arms, pecking and chewing at buttons, jewellery and other easily chewed items.

Until the turtle sanctuary plan was developed, the pond was well established and overgrown, so it needed a thorough refurbishment to bring it up to spec. It was emptied and parts were dug to provide extra depth, making it up to 1.5 metres deep in places. Shallower areas for climbing out were provided, along with a series of floating basking logs, plus the pond was lined with a deep layer of silt to allow the turtles to hide and escape extremes of temperature. A mesh roof lets in plenty of natural sunlight and UVB, but no supplemental heat is provided.

Live plants not only provide aeration, but also act as a source of food for the turtles which reside there. “Our turtles eat a lot of the aquatic greenery!,” says Andy, “But we also provide a pelleted diet from our sponsors King British, as well as a whole chicken once each week. This chicken provides more than enough calcium, as the turtles leave nothing uneaten – bones included.

About a month after the first batch of turtles was introduced, the pond was drained and around a dozen animals were removed to see how they were faring. They were weighed and assessed again, and the new data checked against the old. Thankfully, it seemed the residents were doing pretty well.

Stage 4

Nature walk

Lincolnshire Wildlife Park spans more than 32 acres, some of which is currently under development to be used as a nature walk. The tree-strewn route is punctuated with several non-planted areas which are to become turtle ponds for more established turtles which do not require constant monitoring. An estimated 24 ponds will be built over the next couple of years, including one which will have a glass panelled area which will allow visitors to see the turtles’ underwater behaviours.

Stage 5

Wild 4 Learning Centre

The temperature-controlled facility will be a multi-purpose indoor education centre which will also, for the purposes of this article, contain five large heated aquariums to house tropical and subtropical species. However, it would be remiss to not mention the real purpose behind this facility. “I was speaking to a friend’s child about their forthcoming visit to a zoo, and I was surprised to hear that it had been cancelled. Apparently a few pupils in the class couldn’t go, because their families could not afford the expense,” explained Steve. “It really got to me, and I couldn’t get it out of my mind.

“The first thing I did was invite the school to visit the Park free of charge, and we gave them a grand VIP tour. The next thing was to develop a plan to create an education facility which all schools could use free of charge. As well as free access to the park, we plan to build an education centre for schools to use, which will be called Wild 4 Learning. We believe that this will be the first free education resource hosted at a paid attraction. As we speak the architect’s brief has been completed and the facility will open in around 18 months’ time.

Stage 6

Research pond

Lincolnshire Wildlife Park already features a large, established pond area. Indeed, it is more akin to a small lake than a pond. This is also earmarked for turtles which will be part of a behavioural research project in conjunction with University of Lincoln. “There’s lots of speculation about how much impact turtles might have on the environment,” explains Steve. “We’ll be working with students from the University to measure the actual, real-life impact.”

The pond will be segmented into four distinct sections, each allocated to a different research study, whether it be for a specific species or a particular environmental consideration. “We’re eager to ascertain the facts, rather than relying on anecdote and hearsay.” ➤



The Park’s three introductory pods, each of which can house 10 large freshwater turtles.





Part of the Park

A visit to Lincolnshire Wildlife Park is an amazing experience. It's a visual and aural extravaganza, with hundreds of colourful parrots, lions, tigers and an impressive array of other animals. However, when we were there, we saw only the slightest glimpse of the turtles, despite the ponds being home to several dozen individuals.

"They're not the most showy of animals, and you'll need a nice day and a bit of luck in order to see them basking at present," says Andy. "And we're largely okay with that." He continues. "The primary goal of the National Turtle Sanctuary is to create a home to accommodate the turtles which might otherwise be euthanised, and we've made a decent start already. As the Sanctuary project grows we'll continue to focus on the Sanctuary's primary goal, but we'll also develop the opportunities for visitors to see the turtles too."

"We're confident that, as time goes by, the turtles will begin to be less fearful of humans and become more inclined to show themselves. We'll also create a feeding routine which will compel them to hang around in the more accessible parts of the viewing areas, so people can get closer and see the turtles doing their thing more easily. Plus, the glass-fronted pond should be quite eye-catching too."

But that's all in the future for now, as the Sanctuary focusses on ensuring there's somewhere for turtles to live out their lives in peace.

The future

While the problem with free-range turtles is currently becoming more obvious, Steve predicts a time when the problem could be essentially solved. "Legislation has caused more turtles to be released, not fewer. It's a bit ironic considering the laws were designed to prevent invasive and non-native issues, but have, instead, made the problem worse – at least in the short term," says Steve.

The reptile trade has long since stopped importing the problematic species which gave rise to this issue in the first place. Importers and wholesalers should be commended for voluntarily implementing a halt on the importation of these species. However, it's unfortunate that fish importers continued to bring them in, even after the reptile trade agreed not to.

It took a ban on import and sale for the fish trade to stop bringing in *Trachemys scripta* species, which should have done the trick. Unfortunately the fish importers have simply switched to importing other species – specifically the Florida Cooter *Pseudemys floridana*. Worryingly, these animals can grow to be even larger, and who knows what environmental impact these might have if released. We can only hope the fish trade sees sense before another problem occurs. ■



**Turtle problem?**  
If you need to rehome a turtle, email the National Turtle Sanctuary at [turtle@lincswildlife.com](mailto:turtle@lincswildlife.com)

Steve Nichols CEO of Lincolnshire Wildlife Park, the National Parrot Sanctuary and the National Turtle Sanctuary.



TURTLE HUT  
FOR WATER OR LAND

35%  
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NOW MADE OF  
ECO-FRIENDLY  
CERAMIC!



Description	Code	Trade	RRP	Promo
ZM Turtle Hut, Small, AH-S	DZT005	£3.61	£6.49	£2.11
ZM Turtle Hut, Medium, AH-M	DZT010	£4.05	£7.29	£2.37
ZM Turtle Hut, Large, AH-L	DZT015	£5.83	£10.49	£3.41
ZM Turtle Hut, X-Large, AH-XL	DZT020	£9.99	£17.99	£5.84
ZM Turtle Hut, Giant, AH-G	DZT025	£16.10	£28.99	£9.42

A natural log hiding place for your reptiles with the convenience, strength, and washability of ceramic. Inert material means it won't mold and is easy to sterilise. It can be submerged in water for aquatic turtles, newts, and even shy fish, or used on dry land for any species of reptile or amphibian.



REPTILE LAMPS  
FIXTURES & STANDS

35%  
OFF



Description	Code	Trade	RRP	Promo
ZM Reptile Lamp Stand Small, LF-21	LZL003	£18.33	£32.99	£10.72
ZM Reptile Lamp Stand Standard, LF-20	LZL005	£23.88	£42.99	£13.97
ZM Mini Deep Dome Lamp Fixture, LF-18	LZB605	£18.88	£33.99	£11.04
ZM Deep Dome Lamp Fixture, LF-17	LZB610	£26.99	£47.99	£15.60
ZM Large Deep Dome Combo 2-pack LF-25	LZB615	£41.66	£74.99	£24.37

Use a Reptile Lamp Stand to safely suspend any of Zoo Med's Lamp fixtures or Drippers above your enclosure. Available in two sizes, both with adjustable height and length as well as power cord clips and a large base for stability.

Small: 20 gallons in size and has a max height adjustment of 24" (61 cm) and a maximum length adjustment of 12" (30 cm).

Large: maximum height of 38" (97 cm) and maximum length adjustment of 15" (38 cm).



The Deep Dome Lamp Fixtures feature an extra long reflector dome that extends beyond the face of the lamp, preventing the lamp from sticking out. Highly polished aluminum inside the dome greatly increases UVB & UVA output.



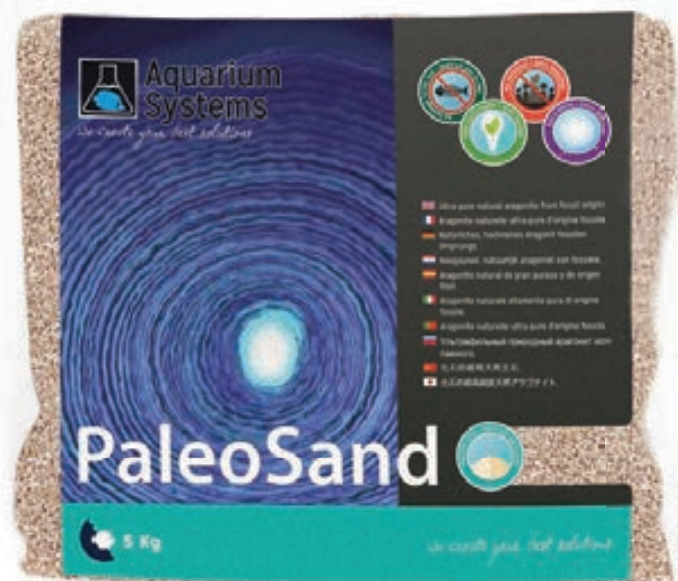


# PaleoSand

10% OFF

Ultra-pure natural aragonite from fossil origin is a substrate for saltwater aquaria. Due to it's purity, Paleo Sand is extremely bright with highly reflective properties which is an advantage for high light thriving corals.

It is an outstanding alternative to natural coral sand and protects the environment. Before placing in the aquarium, rinse the substrate thoroughly.



## Available In

Fine 5kg



Medium 5kg



Description	Code	Trade	RRP	Promo
AS Paleo Sand Fine 5kg	1SAP005	£4.16	£9.99	£3.56
AS Paleo Sand Medium 5kg	1SAP105	£4.16	£9.99	£3.56



# TURTLE PEBBLES

30% OFF

Exo Terra Turtle Pebbles are smooth river pebbles that have rounded over time in fast moving rivers. The smooth pebbles prevent injury to bottom dwelling or foraging turtles. The variations of colours and patterns create a natural looking riverbed.



Description	Code	Trade	RRP	Promo
ET Turtle Pebbles Sm 8-10mm 4.5Kg PT3830	SHP050	£7.94	£14.29	£3.97
ET Turtle Pebbles Lg10-20mm 4.5Kg PT3833	SHP055	£7.94	£14.29	£3.97

# Turtle products

## Must-have kit for turtle keepers

We asked the Peregrine team to vote for their favourite turtle-related products. From the dozens of options available on the shelves in the Peregrine warehouse, here's the team's turtle selection which they felt deserved a mention in this month's magazine. Did we miss your favourite turtle product? Let us know your recommendations on the Peregrine Livefoods trade only community.





HARDWARE

Zoo Med TurtleTherm Heater

Turtles can be ‘lively’ pets so you’ll need a water heater that’s a little hardier than most. The Zoo Med TurtleTherm Heater is built with an automatic shut-off safety switch, should the heater be somehow removed from the water. It switches off if the water level drops too low, thereby providing peace of mind that it will not overheat. It also has a large digital temperature display which gives a clear indication of the water temperature.

Description	Code	Trade	RRP
ZM TurtleTherm Aquatic Heater 50W, TH-50	HZT005	£22.22	£39.99
ZM TurtleTherm Aquatic Heater 100W, TH-100	HZT010	£26.10	£46.99



Lucky Reptile Thermo Clean

Regular internal aquarium heaters are a little too delicate for turtles. They’re easily damaged by the crash, bang, wallop of a turtle exploring its enclosure, causing an expensive and potentially dangerous situation. Instead, the 100w heater of the Thermo Clean is safely installed inside the filter itself. The filter also excels, being user-friendly, with low power consumption and a super-quiet pump. Three filter stages ensure effective cleaning and make the filter suitable for aquariums up to 150 litres.

Description	Code	Trade	RRP
LR ThermoClean 150 Filter/Heater,TCF-150	CLT150	£76.06	£136.99



Exo Terra Turtle UVB Fixture

Specially designed for aquatic turtles, this unit is perfect for use with Exo Terra Turtle Terrariums. The Turtle UVB lamp’s balanced ultraviolet and visual light spectrum prevents shell softening and deformation while also providing physiological wellbeing. The highly polished internal reflector enhances the UV and visual light output.

Description	Code	Trade	RRP
ET Turtle UVB Lamp Fixture 11w, PT2234	LHC245	£35.00	£62.99



Zoo Med Turtle Dock

One of the best-selling turtle products, these have a self-levelling feature that automatically adjusts to the water level. A submerged ramp allows turtles to easily access the dry basking area for maximum exposure to heat and UVB lamps. Available in 4 sizes to accommodate any size aquatic turtle.

Description	Code	Trade	RRP
ZM Turtle Dock, Mini TD-5	EZT103	£6.94	£12.49
ZM Turtle Dock, Small, TD-10	EZT105	£9.16	£16.49
ZM Turtle Dock, Medium, TD-20	EZT110	£15.27	£27.49
ZM Turtle Dock, Large, TD-30	EZT115	£21.38	£38.49

Exo Terra Swamp Basking Spot

This lamp is designed for use in aquatic or extremely humid setups, where high humidity or water splashes could cause a regular basking lamp to burn out or shatter.

The outer sleeve of the Exo Terra Swamp Basking Spot is made from extra strong neodymium glass. This makes it splash and mist resistant and ideal for providing basking areas for turtles.

Description	Code	Trade	RRP
ET Swamp Basking Spot Bulb 50w, PT3780	LHS050	£7.67	£13.79
ET Swamp Basking Spot Bulb 75w, PT3781	LHS075	£8.33	£14.99
ET Swamp Basking Spot Bulb 100w, PT3782	LHS100	£9.33	£16.79

Exo Terra Turtle Cliff

A waterfall, basking area and filter in one. Its high-spec filtering system transforms an aquatic terrarium setup into a neat habitat feature while providing turtles and other semi-aquatic terrarium animals with the ideal basking or terrestrial area. The hidden filter provides clear, healthy water while the waterfall creates necessary water circulation and aeration. The natural rock texture and colour allows it to integrate easily into any aquatic terrarium setup.

Description	Code	Trade	RRP
ET Turtle Cliff Filter. Medium, PT3650	CHF150	£39.44	£70.99
ET Turtle Cliff Filter. Large, PT3655	CHF155	£52.78	£94.99





FOODS

ZooMed Aquatic Turtle Food

These three products have been scientifically developed specifically to meet turtles’ dietary needs at crucial stages of their lives.

Hatchling Formula

Formulated to give turtles the high protein diet they need in the early stages of their development. The pellets are highly palatable for young turtles and a great way to encourage them to accept a pellet diet.

Description	Code	Trade	RRP
ZM Aqu.Turtle Food Hatch. 54g, ZM-56	FZT105	£1.73	£2.59
ZM Aqu.Turtle Food Hatch. 213g, ZM-92	FZT107	£3.73	£5.59
ZM Aqu.Turtle Food Hatch. 425g, ZM-93	FZT108	£5.86	£8.79

Growth Formula

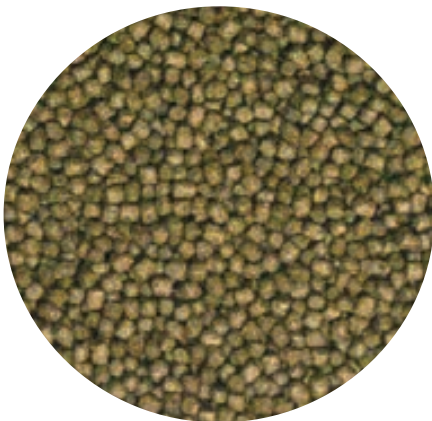
Developed for juvenile turtles as they grow to maturity. A well-balanced protein diet that gives the animal the protein it needs as it grows.

Description	Code	Trade	RRP
ZM Aqu.Turtle Food Growth, 42.5g, ZM-50B	FZT110	£1.79	£2.69
ZM Aqu.Turtle Food Growth, 213g, ZM-51B	FZT115	£2.99	£4.49
ZM Aqu.Turtle Food Growth, 369g, ZM-52	FZT120	£4.19	£6.29
ZM Aqu.Turtle Food Growth, 1.53Kg, ZM-54	FZT122	£13.99	£20.99

Maintenance Formula

One of the only diets on the market specifically developed for adult turtles. While it is well known that tortoises need a low protein diet once mature, fewer keepers realise that the same is also true of turtles. Many commercial diets tend to have a high protein content, but this formula has been developed as a complete and appropriate diet for adults.

Description	Code	Trade	RRP
ZM Aqu.Turtle Food Maint. 184g, ZM-110	FZT130	£2.73	£4.09
ZM Aqu.Turtle Food Maint. 340g, ZM-111	FZT131	£4.12	£6.19
ZM Aqu.Turtle Food Maint. 1.27Kg, ZM-113	FZT133	£11.86	£17.79



Hatchling



Growth



Maintenance

Java Reptile Branches

30% OFF

Solid, quality branches of wood. Java branches are sand blasted to guarantee cleanliness and smoothness. Great shapes for all animals to climb, bask and explore.

- Each branch is unique long lasting wood & hard surface
- Provides a basking platform for your reptile
- Can be used as a foundation for vines
- Allows access to higher levels of the enclosure
- Available in small, medium, large and x-large sizes

Description	Code	Trade	RRP	Promo
PR Java Reptile Branch, Small	DJB005	£8.88	£15.99	£6.22
PR Java Reptile Branch, Medium	DJB010	£11.66	£20.99	£8.16
PR Java Reptile Branch, Large	DJB015	£14.99	£26.99	£10.49
PR Java Reptile Branch, Extra-Large	DJB020	£19.44	£34.99	£13.61



Plastic Hides

40% OFF



ProRep Plastic Hides are tough and sturdy, with an easy to clean surface.

An economical option with adaptable applications, including under-substrate use. Available in a range of sizes suiting most species.



Description	Code	Trade	RRP	Promo
PR Plastic Hide Mini, 120x60x50mm	DPA500	£2.38	£4.29	£1.43
PR Plastic Hide Small, 120x80x60mm	DPA510	£2.94	£5.29	£1.76
PR Plastic Hide Medium, 240x180x60mm	DPA520	£4.61	£8.29	£2.77
PR Plastic Hide Large, 330x220x80mm	DPA530	£5.83	£10.49	£3.50
PR Plastic Hide X-Large, 420x270x110mm	DPA540	£8.60	£15.49	£5.16
PR Plastic Hide Giant, 510x345x150mm, DPA550	DPA550	£15.83	£28.49	£9.50



LIVEFOODS

Livefoods that are often overlooked for turtles which, in the wild, will eat a wide range of foods such as insects, fish, crustaceans, grasses, flowers, and mushrooms. Replicating this variety in captivity means offering as many different options as possible.

Live insects

Crickets, soldier fly larvae or earthworms will help stimulate the natural hunting behaviour in turtles. Soldier fly larvae have a good nutritional balance, especially for young turtles.



Description	Code	Trade	RRP
Calci-Worms Large, pre-pack	A381	£1.99	£4.25
Calci-Worms Large, Bulk 1000 (2x 500)	A383	£17.50	£37.50
Calci-Worms Small, pre-pack	A385	£1.99	£4.25
Calci-Worms Small, Bulk 1000	A387	£7.00	£15.00
Giant Lob Worms (Lumbricus) prepack 10	A352	£1.99	£4.25
Small Worms (Dendrobaena) prepack 35	A362	£1.35	£2.90
BULK BAG Small Worms (Dendrobaena) 1Kg	A365	£24.99	£53.55
LR Earthworms 10g E-20	FLE010	£3.33	£5.99
Silent Crickets pre-pack, Large	A502	£1.35	£2.90
Silent Crickets, Large (Bag of 500)	A504	£9.00	£19.30
Silent Crickets pre-pack, Standard	A507	£1.35	£2.90
Silent Crickets, Standard (Bag of 500)	A509	£6.50	£13.95
Silent Crickets, Standard (Bag of 1000)	A510	£11.50	£24.65
Silent Crickets pre-pack, Small	A512	£1.35	£2.90
Silent Crickets, Small (Tub of 500)	A513	£2.90	£6.20
Silent Crickets pre-pack, Micro	A517	£1.35	£2.90
Silent Crickets pre-pack, Extra-Large	A521	£1.35	£2.90
Silent Crickets pre-pack, Med/Small	A524	£1.35	£2.90
Silent Crickets, Extra-Large(Bag of 500)	A525	£11.50	£24.65
Silent Crickets, Med/Small (Bag of 1000)	A527	£6.55	£14.05
Silent Crickets pre-pack, Medium	A531	£1.35	£2.90
Silent Crickets, Medium (Bag of 500)	A532	£4.50	£9.65
Silent Crickets, Medium (Bag of 1000)	A533	£8.50	£18.20

Live plants

Turtles will eat many of the species that tortoises do, with *Callisia repens* being a firm favourite.



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Code: 1DA051  
Barrel Reef  
19.5 x 12.5 x 11cm  
Trade: £6.99  
Promo: £4.19



Code: 1DA052  
Barrel Saloon  
17 x 13.5 x 19cm  
Trade: £6.95  
Promo: £4.17



Code: 1DA058  
Cave with Skull & Treasure 22.5x17.5x17cm  
Trade: £10.45  
Promo: £6.27



Code: 1DA073  
Divers Helmet  
18 x 15 x 17cm  
Trade: £6.89  
Promo: £4.13



Code: 1DA082  
Drunken Pirate Skeleton  
9 x 9 x 12cm  
Trade: £3.98  
Promo: £2.39



Code: 1DA168  
Shipwreck 24.5 x 6 x 18cm  
Trade: £9.75  
Promo: £5.85



Code: 1DA169  
Shipwreck Scene wth Plants  
31x15.5x12cm  
Trade: £12.48  
Promo: £7.49



Code: 1DA170  
Shipwreck with Grass 30 x 14 x 21cm  
Trade: £14.95  
Promo: £8.97



Code: 1DA172  
Skeleton with Wheel  
7 x 7 x 15.5cm  
Trade: £3.25  
Promo: £1.95



Code: 1DA173  
Skull with Padlock & Axe 16.5x16x11.5cm  
Trade: £5.95  
Promo: £3.57



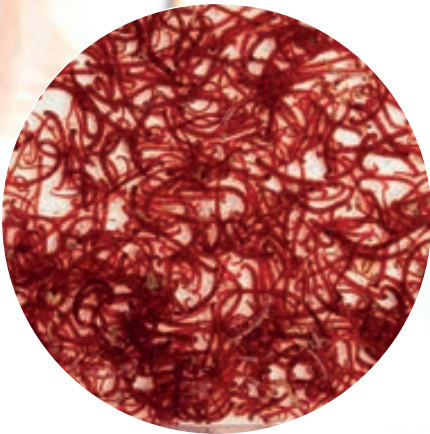
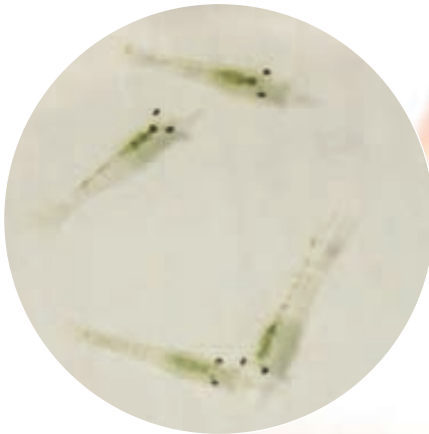
Code: 1DA174  
Skull with Pirate Hat  
15 x 14 x 14.5cm  
Trade: £6.25  
Promo: £3.75



Live aquatic foods

Bloodworm, mysis shrimp, or brine shrimp are useful as an additional treat and a great source of protein.

Description	Code	Trade	RRP
LIVE Mysis Shrimp (100ml)	A428	£0.65	£1.40
Gamma Blister Mysis Shrimp 95g	ZGF123	£1.10	£1.99
Gamma SLICE Mysis Shrimp , 250g	ZGF423	£1.66	£2.99
Peregrine Blister Pack Mysis 100g	ZPB025	£1.13	£2.03
LIVE Bloodworm LARGE (100ml)	A416	£0.60	£1.30
LIVE Bloodworm SMALL (100ml)	A418	£0.55	£1.20
Gamma Blister MINI Bloodworm, 95g	ZGF105	£1.10	£1.99
Gamma Blister Bloodworm, 95g	ZGF125	£1.10	£1.99
Gamma SLICE Mini Bloodworm, 250g	ZGF405	£2.08	£3.74
Peregrine Blister Pack Bloodworm 100g	ZPB005	£1.13	£2.03
LIVE Brine Shrimp (Artemia) (100ml)	A410	£0.65	£1.40
Gamma Blister Brineshrimp 95g	ZGF115	£1.10	£1.99
Gamma Blister Brineshrimp+Spirulina 95g	ZGF116	£1.38	£2.48
Gamma Blister Garlic Brineshrimp, 95g	ZGF170	£1.38	£2.48
Gamma SLICE Brineshrimp, 250g	ZGF415	£1.66	£2.99



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**Code: DRS014**  
Bonsai with  
Rock Feeder  
22 x 16 x 17cm  
Trade: £9.45  
Promo: **£5.67**



**Code: DRS019**  
Cactus with Rock Base  
10 x 10 x 8cm  
Trade: £5.50  
Promo: **£3.30**



**Code: DRS032**  
Driftwood with Plant  
10 x 9 x 11cm  
Trade: £3.49  
Promo: **£2.09**



**Code: DRS043**  
Rock Cave 20 x 14 x 6.5cm  
Trade: £3.74  
Promo: **£2.24**



**Code: DRS037**  
Plant with Rock Base  
Trade: £2.25  
Promo: **£1.35**



**Code: DRS045**  
Rock Cluster 28 x 11 x 10.5cm  
Trade: £3.71  
Promo: **£2.23**



**Code: DRS070**  
Root with Silk Plant  
16.5 x 10 x 6cm  
Trade: £2.49  
Promo: **£1.49**



**Code: DRS060**  
Rock with Face  
7 x 6.5 x 13cm  
Trade: £2.69  
Promo: **£1.61**



**Code: DRS077**  
Skeleton Dinosaur  
27 x 8 x 4cm  
Trade: £4.25  
Promo: **£2.55**



**Code: DRS095**  
Trunk Feeder  
9 x 9 x 3.5cm  
Trade: £1.75  
Promo: **£1.05**



# The Turtle Tally

## Citizen-science at work

It would be an exaggeration to say that turtles are a common sight in the ponds and canals of the UK, but they're certainly out there in decent numbers. We know that turtles are sometimes released by owners who can no longer care for them, and some are also likely to be escaped pets. But how many free-range turtles are there in the UK? What kind of health are they in? And what effects are they having on our native ecosystems? Until recently we had no idea, but thanks to the Turtle Tally project, the facts are becoming a little clearer.

Freshwater turtles haven't been native in the UK for over 8,000 years since the European Pond Turtle (*Emys orbicularis*) became extinct here. But that hasn't stopped a handful of interlopers making their home in ponds, canals, rivers and lakes all across the nation. While research studies are investigating similar situations in warmer areas of Europe, where invasive turtles are out-competing native turtles for food and basking opportunities, there's little being done to assess the size of the problem in the UK. Thankfully, the data shortfall is now being addressed by researchers from Hadlow College and the British Herpetological Society.

Turtles have been something of a passion for herpetologist and conservationist Suzie Simpson. With plenty of herp and turtle experience under her belt, having volunteered with Durrell Institute conservation projects in Mauritius and conducted PhD research in Canada, she's now focussed her attention on the UK's turtle population. "Okay, so they're not native here, but their story and situation is still pretty fascinating," says Suzie. "And, believe it or not, we hardly know about them at all."

A lack of information about non-native species has potentially serious consequences. "Invasive species issues are high on the political agenda in most countries and legislation is drafted using the best available information," explains Suzie. "What we're doing with the Turtle Tally is collecting data to inform the decision-making process. While we don't have native turtle species to protect as they do in Spain and Italy, we have plenty of native fauna and flora, and we need to know how the UK's introduced turtles affect the ecosystem."

The project was launched in the spring of 2019, initially promoting three 'turtle spotting' weekends where the public could report the numbers and species of turtles they found in their local ponds and lakes. Spotters are urged to report their findings via the Turtle Tally website, which features a survey where users can record a location, photographs of the animal, and the time and date the animal was sighted. There's even a tool to help spotters identify which species they have seen.

Since its launch the project has run continuously throughout the year, with the major push for spotters occurring during the spring and summer. The Turtle Tally has, so far, recorded 14 sightings of free-range turtles of six species, with animals being spotted all over the UK and as far north as Liverpool.

Suzie Simpson is the Higher Education Programme Leader and Animal Management Lecturer at Hadlow College in Kent.

To take part in the Turtle Tally visit:  
[hadlow.ac.uk/turtletally](http://hadlow.ac.uk/turtletally)



The biggest issue facing the Turtle Tally is simply getting the message out there. The project relies on the general public reporting their sightings, so the more people who find and report turtles, the more accurate the data will be. "But even those who do find out about the project need reassuring that we're not going to remove their beloved turtles," says Suzie. "The general public certainly knows where these turtles are, and most are quite fond of their local reptilian interlopers. They don't want to see them removed or euthanised, so it's important that we let people know that this is purely an observational study. We just want to know where they are and how many there are."

The most interesting data from the Turtle Tally Project will be realised in a few years when the data set is large enough to examine and identify year on year changes. As different turtle species become popular pets, the numbers and species the study finds will invariably change. The information will potentially help to ascertain what can be done, not only in terms of what effect the turtles have on habitats and ecology, but also what can be done to prevent turtles being released into the wild in the first place.



# CITIZENS,



# WE NEED YOU!

...to contribute to Hadlow College's National  
**'Turtle Tally' Citizen Science Project**

In the UK, we already have a large number of introduced turtle and terrapin species frequenting lakes, rivers and ponds, adversely affecting the native wildlife and plant life.

People across the UK can help us address this issue and collect data by submitting their sightings of these invasive species over a three-week period in Spring 2019.

Visit **[hadlow.ac.uk/turtletally](http://hadlow.ac.uk/turtletally)**  
for more details on how to get involved.

0719

## Turtle Tally FAQ

### WHO IS RUNNING THE PROJECT?

Hadlow College is working in association with the British Herpetological Society and the National Centre for Reptile Welfare to engage the general public in citizen science.

Students and staff from the college will be supervising and analysing the data, with expert support provided by the Centre and Society.

### WHY ARE YOU DOING THIS PROJECT?

There's a lack of information regarding turtles which have been introduced to the UK's lakes, ponds and canals. We are seeking to gauge the number of free-range turtles out there and where they are located.

### WHERE IS THE PROJECT BEING CARRIED OUT?

Throughout the whole of the UK – so everyone is invited, and everyone can get involved.

### WHAT HAPPENS TO THE INFORMATION?

We are all about education, so we have offered the project to our degree students to be able to take part and analyse the data as part of their course and dissertation. This is an exciting opportunity for our students to take part in a great research topic.

### DO I NEED TO PICK UP THE TURTLES?

No. This is an observational science project, so no physical interaction with the turtles is necessary. At no point are we expecting anyone to handle any of these animals. It is illegal to release species that are non-native to the UK countryside, so by handling the turtles they would then need to be brought into captivity to avoid the handler carrying out a criminal act.

### DOES IT COST ANYTHING?

No. Just your time and kindness in taking part, and the time to observe and submit your sightings online.



# THE PERFECT KIT FOR BUDDING KEEPERS!

While the reptile trade has become massively popular with each passing year, there are endless wonders to be found in the world of invertebrates too. Many of these animals can make ideal starter pets thanks to their low level of maintenance and unique features when compared with more common pets. The opportunity to observe and learn about these creatures can spark a passion for the natural world in young newcomers to the hobby. In conjunction with Peregrine Livefoods we have launched our own Bug starter Kit.

The kit contains everything needed to comfortably and safely house small invertebrates. It is easily cleaned, portable and has great visibility for watching your new pet and showing them off to others.



## Includes

- Faunarium • Plantation Soil
- Ampallo Plant • Wet Rock Cave

Description	Code	Trade	RRP
ZM Bug Starter Kit	KHG001	£13.77	£19.99



NEW!

EXO TERRA

# BUG STARTER KIT



## Blame Gary

Zoo Med's cutting-edge turtle facility



If you've ever scrolled through Zoo Med's social media platforms, you've probably noticed that turtles feature in their newsfeed a LOT! That could be because Zoo Med founder Gary Bagnal is a notorious turtle fan, so it's no surprise that Zoo Med HQ is home to an impressive turtle care and research facility. We spoke to Ashley Rademacher, Zoo Med's Care and Education Director to find out more.



### So, it's all Gary's fault eh?

Yeah, I guess, although everyone here is just as fond of turtles if the truth be known. But yes, the reason Zoo Med exists as a company is because Gary is passionate about turtles. When the Zoo Med headquarters was being built it made sense for there to be somewhere for Gary's collection of turtles and other animals to be accommodated.

### How many species of turtle do you have there exactly?

There are 33 species and subspecies here, many of which we're breeding. We have seven tortoise species too. (Ed – see the list later in this feature.)

### What do you do with the animals that you breed?

Many of the offspring remain in the collection, but some are swapped or gifted to zoos or other enthusiasts and breeders. Gary also often gifts baby turtles to employees. It's part of the culture at Zoo Med to propagate people's fascination for reptiles, so if we have babies and one of our team shows an interest, it's a great way to make that enthusiasm-sharing happen.

We also work with schools to put reptile pets in classrooms, so some of our turtles go to educational facilities. We set them up with high-spec enclosures and animals, and provide ongoing support thereafter. Again, it's all part of our compulsion to share our passion for reptiles and to demonstrate how reptile keeping is properly done.

### I hear the Zoo Med greenhouse facility is quite something! What's the setup like?

Yes, after six years of development and tweaks it's pretty neat. It has UVB permeable glass which makes the most of the sunshine we get here. The geothermal heating system is probably the most impressive feature. People often think of California as being a hot and sunny place, but where we are can get quite cool. We're on the central coast, so it isn't exactly Malibu here. The geothermal heating system is essentially a series of pipes which are buried around the greenhouse and take heat from the ground. We use that heat to raise the water temperature in the aquatic turtle enclosures.

We also have a pretty high-tech thermostat-controlled heating system which is hooked up to monitors and alarms. The water pumping systems are monitored and alarmed too. Basically, if something isn't right, we'll be alerted.



**Wow, it sounds like every herper's dream. Is it purely a luxury indulgence, or does the greenhouse provide any benefits for Zoo Med as a company?**

The greenhouse is a great facility to work in, but it's not just an indulgence. Beyond housing the collection, it's also a research and development facility.

Of course, there's plenty to be learned about the animals we have there, but there have been lots of product development ideas come from it too. It's the hands-on experience of caring for animals which makes us think "If only we had a product that could help us to do this, or make this part of the husbandry process easier." That's where the ideas for products come from in many cases. If it works out well for us at the greenhouse facility, it will often end up as a Zoo Med product.

**How many staff do you have there?**

There are six of us who work with the animals directly, all of whom also have customer service responsibilities. We feel quite strongly that our customer service team needs to have enough knowledge and experience to answer the questions our customers will come to us with. It's also important to mention that the IT team are regularly involved in what we do in the greenhouse, simply because the setup is so high tech. We rely on them a lot.



**SPECIES WE KEEP AND BREED**

European Pond Turtle	.....	<i>Emys orbicularis</i>
Spotted Turtle	.....	<i>Clemmys guttata</i>
Eastern Painted Turtle	.....	<i>Chrysemys picta picta</i>
Western Painted Turtle	.....	<i>Chrysemys picta bellii</i>
Northern Diamond Back Terrapin	.....	<i>Malaclemys terrapin terrapin</i>
Yellow Blotched Map Turtle	.....	<i>Graptemys flavimaculata</i>
Northern Black Knob Sawback	.....	<i>Graptemys nigrinoda nigrinoda</i>
Eastern Box Turtle	.....	<i>Terrapene carolina</i>
Florida Box Turtle	.....	<i>Terrapene carolina bauri</i>
Three-Toe Box Turtle	.....	<i>Terrapene carolina triunguis</i>
Gulf coast Box Turtle	.....	<i>Terrapene carolina major</i>
Reeves Turtle	.....	<i>Chinemys reevesii</i>
Caspian Pond Turtle	.....	<i>Mauremys caspica</i>
Golden Thread Pond Turtle	.....	<i>Ocadia sinensis</i>
Spiny Hill Turtle	.....	<i>Heosemys spinosa</i>
Razorback Musk Turtle	.....	<i>Kinosternon carinatum</i>
Loggerhead Musk Turtle	.....	<i>Sternotherus minor</i>
**Red Cheek Mud Turtle	.....	<i>Kinosternon scorpioides cruentatum</i>
Three Striped Mud Turtle	.....	<i>Kinosternon baurii</i>
Pink Bellied Side Neck	.....	<i>Emydura subglobosa</i>
Northern Red Faced Sideneck	.....	<i>Emydura australis</i>
Siebenrock's Snake Neck Turtle	.....	<i>Chelodina siebenrocki</i>
Savanna Side Neck turtle	.....	<i>Podocnemis vogli</i>
**African Dwarf Sideneck Turtle	.....	<i>Pelusios nanus</i>
Russian Tortoise	.....	<i>Testudo (Agrioemys) horsfieldii</i>
**Pancake Tortoise	.....	<i>Malacochersus tornieri</i>
Red Foot Tortoise	.....	<i>Geochelone carbonaria</i>
**Forsten's Tortoise	.....	<i>Indotestudo forestenii</i>
Marginated Tortoise	.....	<i>Testudo marginata</i>
Indian Star Tortoise	.....	<i>Geochelone elegans</i>

**SPECIES WE KEEP, BUT HAVE NOT YET BRED**

Eastern Chicken Turtle	.....	<i>Deirochelys reticularia reticularia</i>
Lake Hamilton Ouchita Map Turtle	.....	<i>Graptemys ouchitensis</i>
Pearl River Map Turtle	.....	<i>Gaptemys pearlinsis</i>
Black Eyed Mississippi Map Turtle	.....	<i>Graptemys pseudogeographica kotini</i>
Twist Necks (Orange)	.....	<i>Platemys platycephala</i>
Ornate Diamond Back Terrapin	.....	<i>Malaclemys terrapin macrospilota</i>
Sripe-Necked Musk Turtle	.....	<i>Sternotherus minor peltifer</i>
Spiny Neck Turtle	.....	<i>Acanthochelys spixii</i>
Madagascar Big Headed Turtle	.....	<i>Erymnochelys madagascariensis</i>
African Spurred Tortoise	.....	<i>Geochelone sulcata</i>

\*\* These species are housed in our indoor facility. All of the rest are housed in the greenhouse.



*chelonian collection*



# Livestock lowdown

## Highlights from Europe's most diverse livestock list

### Chinese stripe neck turtle by Stuart Worth

Since red-eared and yellow-bellied terrapins fell from favour, several other turtle species have stepped up to the mark to fill the gap. This delightful species is a great example of how the law of supply and demand works. The Chinese stripe neck turtle (*Mauremys sinensis*) is captive bred for the pet trade in Asia, in semi-natural environments much similar to how red ears and yellow bellies were once farmed in the USA.

This is an attractive creature with plenty of attributes to make them appealing to keepers. They settle into new enclosures well, have few foibles and will eat almost anything – unlike other turtles which might favour only live foods. They readily eat pelleted food. Indeed, they'll readily eat pretty much any food, so no problems there. They're pretty docile too, especially if raised from juveniles which, all told, means these are not a difficult turtle to keep.

Another attractive feature of this turtle is that they don't get to be as big as *Trachemys* species and subspecies mentioned above. Females get to be a relatively chunky eight inches or so, with males only achieving six or seven inches. While this might not seem like much of a difference, the extra volume an extra inch of shell size can make is surprising, and the weight difference between a full-grown male and a full-grown female is significant.

They're a lowland sub-tropical animal which will need a water temperature in the low 20s and a suitably warm basking area. Like red ears and yellow bellies, this species loves to bask and likely occupies a similar ecological niche. That said, they're highly unlikely to pose any invasive risks as they will be intolerant of our relatively cold climate.

One strange peculiarity of this species is that they seemingly happily hybridise with other species – even those not at all closely related. I've read one account of Chinese stripe-necks successfully breeding with Chinese three-striped box turtles (*Cuora trifasciata*) – a species which is in no way similar or closely related. It's quite a remarkable feat if you think about it. The implications for this call for keepers to accommodate this species separately from others as mix-and-match breeding will only serve to pollute bloodlines and muddy the waters for this species in the future.



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TAIWAN  
LAOS  
VIETNAM



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AQUATIC LIVEFOOD  
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APPROX 20 YEARS



20 - 24°C WATER TEMP  
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- Check our website. It's updated constantly and is the most up-to-the-minute account of Peregrine's livestock availability.
- Receive fascinating weekly emails from our resident herp expert, Stuart Worth, highlighting the best of our livestock list.
- Follow us on Facebook to see the latest arrivals.





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RS Compact Lamp Specialist - D3 10% UVB - 23w	LRC025	£10.52	£23.99	£8.00
RS Zone 2 T5 1150mm (46") - 54w	LRD075v	£12.71	£28.99	£9.66
RS Zone 3 T5 550mm (22") - 24w	LRD272	£10.96	£24.99	£8.33
RS Zone 3 T5 850mm (34") - 39w	LRD273	£11.84	£26.99	£9.00
RS Zone 3 T5 1150mm (46") - 54w	LRD275	£12.71	£28.99	£9.66
RS Zone 2 T8 450mm (18") - 15W	LRE018	£8.33	£18.99	£6.33
RS Zone 2 T8 600mm (24") - 18W	LRE024	£8.77	£19.99	£6.67
RS Zone 2 T8 750mm (30") - 25W	LRE030	£9.21	£20.99	£7.00
RS Zone 2 T8900mm (36") - 30W	LRE036	£9.64	£21.99	£7.33
RS Zone 2 T8 1050mm (42") - 38W	LRE042	£10.08	£22.99	£7.66
RS Zone 3 T8 450mm (18") - 15W	LRE118	£8.33	£18.99	£6.33
RS Zone 3 T8 600mm (24") - 18W	LRE124	£8.77	£19.99	£6.67
RS Zone 3 T810% 750mm (30") - 25W	LRE130	£9.21	£20.99	£7.00
RS Zone 3 T8 900mm (36") - 30W	LRE136	£9.64	£21.99	£7.33
RS Zone 3 T8 1050mm (42") - 38W	LRE142	£10.08	£22.99	£7.66

RS T8 Single Controller, 10w, 15w, 18w	LRF018	£19.44	£36.99
RS T8 Single Controller, 25w, 30w	LRF030	£19.44	£36.99
RS T8 Single Controller, 36w, 38w, 40w	LRF040	£19.44	£36.99

