small worlds... big oportunities!

your invaluable guide to the profitable world of nano fish and invertebrate keeping







Small...is beautiful! Good things...come in small packages! Small...is the new BIG!

The world of nano fish and invertebrate keeping is exploding right now as space and money conscious consumers look for small, stylish pet housing solutions. This demand has fuelled a 35-40% growth in the small fish market over the last 2 years alone*.

Manufacturers are responding to this need with a whole host of 'nano' products and Hagen is no exception. The new range of Fluval nano tanks and Exo Terra nano terrariums will allow consumers to create fascinating new worlds hosting fish, shrimps, exotic plants and a plethora of bugs and creepy crawlies...without the need for huge tanks and expensive equipment.

This new category opens up massive potential for retailers to cash in on livestock and accessory sales and we have produced this guide to help you make the most of this valuable and profitable new market.

*Source: Neil Hardy Aquatica, based on sales of small fish suitable for 'nano' aquaria.













COMMON FRESHWATER NANO AQUARIA

Coldwater, Temperate And Tropical Fish

The most popular nano tanks are unheated, stylish 'lifestyle' aquariums such as Fluval's EDGE and Chi aquarium sets. At 19 - 25 litres, these modern, well filtered fish homes can house from 8-12 small fish.



Shrimp & Snails

Freshwater shrimp or snails are ideal for nano environments, due to their small size. These brightly coloured invertebrates are becoming increasingly popular and as shrimp specific equipment becomes more readily available, the market is set to explode. Fluval's new 30l 'EBl' kit (Ebi is Japanese for shrimp) makes the perfect home for shrimp and the smaller 7.6l Fluval Spec kit can house a few shrimp or snails thanks to its complete 3 stage filtration.



Plants

Planted aquaria can look fabulous but you need the correct equipment to keep the plants looking fresh and lush. Fluval's new 30l 'Flora' kit includes a specially formulated plant friendly substrate and a pressurised nano CO2 unit to help ensure long term plant health.



RECOMMENDED SPECIES

This is just a suggestion of the species it is possible to successfully keep in a nano aquarium environment and is not meant as a comprehensive list.

Coldwater and Temperate Fish

Consumers should be advised that if ambient room temperature falls below 17° C, a suitable heater should be added for any temperate species

Name	Aquarium Type	Approx Size	Recommended Temp	Comments
White Cloud Mountain Minnow (Tanichthys albonubes)	Coldwater	4-5cm	17 - 23°C (62 - 73°F)	The White Cloud Mountain Minnow can survive in temperatures as low as 5°C (41°F). They are schooling fish that need to be kept in groups of 5 or more. They are omnivorous and will accept a variety of live, dried and flake foods.
Rainbow Dace (Cyprinella lutrensis)	Coldwater	up to 9cm (usually smaller)	15-25°C (59-77°F)	Also known as the Red Shiner, the beautiful Rainbow Dace is a fish that shops need to hold a licence for in order to import and sell it legally (although members of the public do not need a licence to own it). Should not be mixed with goldfish.
Zebra Danio	Temperate/ Tropical	5-7cm	18 - 26°C (64 - 78°F)	This fish is a good species for amateur aquarists to begin with. It is a hardy fish that is not demanding when it comes to water conditions. They are omnivorous fish that enjoy live foods such as small insects and worms. They should also be fed algae to aid in digestion.
Platy (xiphophorus maculates)	Temperate/ Tropical	5-8cm	20 - 26°C (68 - 78°F)	Platies can feed on brine shrimp, vegetables, granules, flakes. Use live food from time to time. Males are smaller than females. Breeding is very easy. Your tank will probably be overpopulated if there are no other fish which could eat the fry.

Tropical Fish

Rather than only listing the obvious Neon Tetras and Guppys in your tropical nano section, why not offer something a little more unusual? Here are a few suggestions.

Name	Aquarium Type	Approx Size	Recommended Temp	Comments
Endler's Guppy (Poecilia reticulate)	Tropical	2-3cm	24 - 27°c	Endler's guppies are active, schooling fish much like regular guppies. Males are very vividly coloured, often having black and orange markings on the dorsal fin and tail. They prefer hard, alkaline water and breed very easily.
Pseudomugil furcatus	Tropical	5cm	23 - 28°C	A very pretty rainbowfish that is only occasionally seen in UK shops. The description it is sometimes listed as is Popondetta, but that name has been subsequently replaced by Pseudomugil. These fish make an excellent addition to a community tank and fully grown the males look very impressive, particularly with their striking pectoral fins which have bright yellow tips. They will accept all of the usual foods, including flake, frozen bloodworm and brineshrimp.
Ember Tetra (Hyphessobrycon amandae)	Tropical	2cm	24 - 26°C	A tiny, amber-coloured tetra ideally suited to small tanks alongside other miniature species. It is a shy species that will only do well in a tank with plenty of cover (e.g., live or plastic plants) and peaceful tankmates of similar size and temperament. This fish breeds in a similar way to other small tetras. Soft, acid water is essential.
Dwarf Rasbora (Boraras maculatus)	Tropical	2-3cm	24 - 27°C	These beautiful, peaceful fish will do best when kept in groups of 5 or more. A well planted tank will make them more at ease and they can be fed flake foods, brine shrimp and daphnia.

Shrimp

Shrimp are becoming more popular in the UK and are perfect for nano aquaria thanks to their small size and bright colouration. They are relatively easy to keep but are sensitive to changes in water chemistry and pollutants so a good maintenance schedule is essential. Here's a list of popular species.

Name	Aquarium Type	Approx Size	Recommended Temp	Comments
Crystal Red Shrimp	Tropical	2.5cm	20 - 25°C	Captive-bred Crystal Red shrimps are often graded on a scale of quality denoted as C, B, A, S, SS and SSS, the latter denoting highest quality. The grading of the Crystal Red Shrimp is based on the colour and distribution of the markings, and can be very subjective.
Black & White Bee Shrimp	Tropical	2.5-5cm	18 - 23°C	Bee Shrimp are a little more demanding than many other Dwarf Shrimp. Water is required to be soft and slightly acidic for the Bee Shrimp to be happy. They also prefer a little less than tropical temperatures. As with all Dwarf Shrimp the aquarium should be well established and parameters should be kept stable.
Cherry Shrimp (Neocaridina heteropoda)	Temperate/ Tropical	4cm	14 - 30°C	Red cherry shrimp are easy to care for in the home freshwater aquarium and breed well. They will adapt to a wide range of water conditions, and will thrive in the same conditions as many common aquarium fish.
Pinocchio Shrimp or Red Nose Shrimp (Caridina gracilirostris)	Tropical	2.5-3.5cm	22 - 27°C	The red nose shrimp has a long bright red rostrum, which looks almost like a nose. This nose makes it one of the more bizarre looking algae eating shrimp species. The Red Nose Shrimp moves around in a unique way, it lets itself drift in the water flow with the nose pointing towards the gravel. To breed, saltwater conditions are required for the fry. The body should be clear - milky colouration shows signs of sickness.

General Shrimp Care

Shrimp require similar care to most aquarium fish, with one or two differences. The presence of copper in the water will severely stress or even kill most shrimp, so use of an effective water conditioner such as Fluval Shrimp Safe which removes copper and other heavy metals is essential.

Like fish, shrimp will not tolerate ammonia or nitrite in their water. They can be even more sensitive to this than fish so regular 20-30% water changes are recommended and the tank must be well cycled.

Most shrimp prefer moderately hard water with a pH of 6.8 - 8.0. Use of a **Nutrafin** General Hardness test kit is advised, along with Fluval Mineral Supplement to create perfect water conditions.



Many shrimp are algae eaters and will happily graze on plants and other aquarium surfaces. A quality shrimp food such as Fluval Shrimp Granules should also be used to ensure a complete diet. Ornaments should be selected to have no effect on the water chemistry, such as Fluval's chemically inert ceramic shrimp ornaments. Their porous surface is also ideal for shrimp to graze and lay their eggs on.



Snails

Snails are both beautiful and useful in that they are voracious algae eaters and will help keep any aquarium algae free. Here are some of the more popular species available.











Red Spotted Snail Yellow Rabbit Snail

Gold Spot Rabbit Snail

Plants

A well designed planted aguarium is one of the most beautiful living ornaments you can have in your home. With fully equipped kits such as Fluval's Flora Aquarium Set becoming more available, even the novice aguarist can keep a successful, stunning planted aguascape with little effort.

Don't settle for offering run of the mill plants hidden away in a corner. Spend a day creating a stunning planted display in store and 'sell the dream' of a lush underwater paradise. Here are a few plant recommendations, all of which are suitable for nano aquarium environments. Hundreds of varieties are available, for some great example aquarium layouts visit www.tropica.com or www.ukaps.org



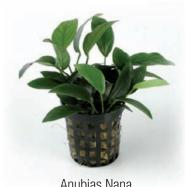
Hygrophilia Pinnatifidia



Lileopsis Brasilensis



Alternanthera Reineckii pink



Anubias Nana





Hemianthus callitrichoides cuba



Cabomba Caroliniana

General Care

As with all live plants, these will do best with a good substrate, effective lighting and a CO2 injection system. Fluval's new Flora Kit combines these three essential elements into one user friendly set.

Fluval Plant Stratum is designed to allow fragile roots to easily penetrate it and helps create perfect water conditions for strong growth.

The overhead lighting system provides balanced, full spectrum light, perfect for plants.

The pressurised CO2 kit provides plentiful carbon dioxide into the water column for superb health and bright colours.

In addition, **Nutrafin Plant Gro** fertiliser provides all the essential nutrients plants require and the specially designed Fluval Flora Planting Tongs makes planting and arranging your plants much easier.



Ancillary Sales

To ensure maximum profit from every aquarium sale be sure to offer a full range of high margin accessory items. Stylish stands, useful custom accessories and stunning décor items are all available from the Fluval range.



Display and Marketing

Follow these 5 tips to get the most from your nano range

1. Dedicate a section of your store to nano tanks and accessories.

Grouping nano related items together will make it easy for browsers to find what they need and encourage impulse purchases.

2. Provide shoppers with a well organised 'one stop shop' display

Organised and attractive displays sell more product, fact. Use the new Fluval merchandising stand to keep all relevant products in one place and maximise your sales.

3. Don't forget the essentials

Small aquaria need just as much, if not more care and attention as larger tanks. Encourage responsible fish keeping whilst earning extra profit by cross selling Nutrafin Test Kits and water treatments.

4. Organise your fish room

Identify live fish suitable for nano aquaria with a sign or sticker, or better yet organise your live display to keep these fish together for easy browsing and selection.

5. Sell the dream

Set up a stunning dry or live display using the accessory items from the range to give shoppers a 'mental shopping list' of additional items to buy to re-create your display at home.





Code	Description	Otv	RRP	Stand Value at RRP
M1054	Hagen Display Stand			
15397	Fluval Edge 23L Aquarium Set Black			
11024	Fluval Edge Algae Magnet			
11059	Fluval Edge Gravel Cleaner			
11206	Fluval Edge Digital Thermometer			
11259	Fluval Edge Fish Net			
11699	Fluval Edge Halogen Bulbs 2 x 10W			
12290	Fluval Edge Ornament Bamboo Wall	3	£29.61	£88.83
12464	2kg Orange Aquarium Gravel			
12470	2kg Black Aquarium Gravel			
A1349	Fluval Edge Algae Clear			
A1379	Fluval Edge Carbon Clean and Clear	6	£4.79	£28.74
A1387	Fluval Edge Pre Filter Sponge	4	£2.85	£11.40
A1389	Fluval Edge Foam Biomax Kit	4	£4.49	£17.96
A756	Fluval 25w Compact Heater			
	TOTAL			£916.58







FLLYAL DISPLAY STAND

01 -	Description	04-	DDD	04IV-I4 DDD
Code				Stand Value at RRP
M1054	Hagen Display Stand			
10506	Fluval 19L Chi Aquarium	3	£81.70	£245.10
11024	Fluval Edge Algae Magnet	6	£7.35	£44.10
11199	Fluval Nano Thermometer	6	£1.53	£9.18
12190	Grass Ornament	8	£4.08	£32.64
12191	Boxwood Ornament			
12192	Lily Flower Ornament	8	£4.08	£32.64
12193	Boxwood and Tall Grass Ornament	4	£6.12	£24.48
12194	Vine Ornament	6	£4.08	£24.48
12195	Plant with Pebble Ornament	4	£6.12	£24.48
12197	Waterfall Mountian Ornament	4	£9.19	£36.76
12198	Mountain Ornament Large	4	£13.27	£53.08
A1420	Fluval Chi Filter Pad Replacement 3pcs	8	£6.12	£48.96
A1422	Fluval Chi Foam Pad Replacement 2pcs	8	£3.06	£24.48
A6700	Nutrafin Max Tropical Fish Flakes 19g	6	£2.14	£12.84
A6830	Nutrafin Max Goldfish Flakes 19g			
A756	Fluval 25w Compact Heater	6	£21.95	£131.70
A7900	Nutrafin Cycle 120ml			
A7927	Nutrafin Aquaplus 120ml	6	£6.02	£36.12
	TOTAL			



DISPLAY STAND

Code	Description	Qty	RRP	
M1054	Hagen Display Stand	1	00.03	
10510	Fluval Spec Aquarium Kit	3	£51.06	£153.18
10511	Fluval EBI Nano Shrimp Habitat			
11024	Fluval Edge Algae Magnet	4	£7.35	£29.40
11199	Fluval Nano Thermometer	6	£1.53	£9.18
12145	Fluval Ceramic Shrimp Décor Cave			
12146	Fluval Ceramic Shrimp Décor 3 Tubes	4	£10.21	£40.84
12147	Fluval Ceramic Shrimp Décor Log	4	£10.21	£40.84
12148	Fluval Ceramic Shrimp Décor Trunk			
12685	2kg Shrimp Stratum			
12686	4kg Shrimp Stratum	2	£18.38	£36.76
A1376	Fluval Spec Filter Foam Replacement			
A1377	Fluval Spec Replacment Carbon	3	£3.06	£9.18
A1378	Fluval Spec Biomax	3	£3.06	£9.18
A456	Fluval Nano Filter Bio Foam 2pcs	4	£3.57	£14.28
A457	Fluval Nano Filter Fine Foam 2pcs			
A458	Fluval Nano Filter Carbon Cartridge 2pcs	4	£3.06	£12.24
A6930	Fluval Shrimp Granules 35g	4	£5.10	£20.40
A756	Fluval 25w Compact Heater			
A7990	Fluval Shrimp Safe 60ml	6	£4.08	£24.48
A7992	Fluval Shrimp Mineral Supplement 60ml			
	TOTAL			





FLUVAL DISPLAY STAND

Code	Description	Qty	RRP	Stand Value at RRP
M1054	Hagen Display Stand	1	00.03	00.03
10512	Fluval Flora Aquatic Plant Kit	2	£102.12	£204.24
11024	Fluval Edge Algae Magnet	3	£7.35	£22.05
11071	Fluval S/Steel Planting Tong	3	£6.12	£18.36
11076	Fluval S/Steel Aquatic Plant Scissors	3	£10.21	£30.63
11199	Fluval Nano Thermometer	6	£1.53	£9.18
12690	2kg Plant Stratum	3	£10.21	£30.63
12691	4kg Plant Stratum	3	£18.38	£55.14
A456	Fluval Nano Filter Bio Foam 2pcs	4	£3.57	£14.28
A457	Fluval Nano Filter Fine Foam 2pcs	4	£3.06	£12.24
A458	Fluval Nano Filter Carbon Cartridge 2pcs	3	£3.06	£9.18
A6700	Nutrafin Max Tropical Fish Flakes 19g	6	£2.14	£12.84
A7540	Fluval Mini Pressurised CO2 Kit	2	£25.53	£51.06
A7541	Fluval Disposable CO2 Cartridges 20g (3pcs)	4	£14.29	£57.16
A7542	Fluval CO2 Diffuser 20g	4	£6.12	£24.48
A7545	Fluval CO2 Pressurised Kit 88g	2	£81.70	£163.40
A7546	Fluval CO2 Disposable Cartridge 88g	2	£14.29	£28.58
A7548	Fluval CO2 Ceramic Diffuser 88g	4	£8.16	£32.64
A7549	Fluval CO2 Ceramic Diffuser Replacement	4	£4.08	£16.32
A7550	Fluval CO2 Bubble Counter 88g	4	£4.59	£18.36
A756	Fluval 25w Compact Heater	3	£21.95	£65.85
A7900	Nutrafin Cycle 120ml	6	£7.04	£42.24
A7927	Nutrafin Aquaplus 120ml	6	£6.02	£36.12
A7947	Nutrafin Plant Gro Iron Enriched 120ml	4	£7.65	£30.60
	TOTAL			

The Wonderful World of Bugs

The reptile market has gone through massive growth over the last 10 years, fuelled in no small part by the incredibly successful Exo Terra reptile range. No longer confined to garages or back bedrooms, today's good looking terrariums have found their way into living rooms across the nation to provide a beautiful and interesting talking point.

Exo Terra are about to take this one step further with the introduction of the new 'Nano Tall' terrarium set. Ideal for bedroom desks or living room shelves, the 20cm wide terrarium will fit almost anywhere and will play home to an array of beautiful bugs and fascinating creepy crawlies.

Ancillary Sales

In most homes a heat source is recommended to keep these tropical insects so an Exo Terra 20cm heat mat is a must. Substrate, suitable décor plants and vines and additional lighting are also available from the Exo Terra range.





Recommended Species

Invertebrates, or bugs are the most abundant life forms on earth, more than a million species of invertebrates are known to science. The Exo Terra Nano Tall Terrarium lends itself perfectly to housing bugs and insects, here are a few suggestions.

Giant Thorny Stick Insect (Trachyaretaon bruekneri)

The Exo Terra Nano terrarium will house a pair of these amazing creatures. The décor of the terrarium need be no more complex than the food plant, which will require to be kept in water to keep it alive. It is not recommended to use plastic plants in the terrarium.

Ideal Temp: 18 - 28°C

Feeding: The Giant Thorny Stick Insect feeds mostly on brambles or other plants such as rose and ivy. It is very important when collecting food plants to make certain they have not been contaminated by insecticides, this will kill your pet.

Substrate: The type of substrate is not critically important, Exo Terra Forest Bark, Plantation Soil or Coco Husk are all suitable.

Handling: These animals must be treated with care, they are fragile and must not be grasped or dropped. Simply allow your animal to walk onto you finger if you wish to inspect him, stick insects are not animals that like to be regularly handled. DO NOT touch your stick insect for at least two days after it sheds its skin.

Life span: 12-18 months.



African Green Mantis are carnivorous, solitary animals and should only be kept on their own as they will kill and eat other mantids, even mates. Mantids need tall terrariums, the Exo Terra nano terrarium is ideal. They need a stick or branch that should be provided for the insect to hang from when it sheds its skin and the distance from the top of the branch to the floor must be at least three times the length of the insect. Plastic plants can also be used to decorate the terrarium, but space for the animal to shed its skin is very important.



Ideal Temp: 18 - 30°C

Feeding: Young mantids should be fed on fruit flies *Drosophila* sp or small crickets. As they grow they can be given larger prey, almost any insects will be eaten, flies, maggots, crickets, locusts, and grasshoppers. etc. in fact they will eat just about anything they can grab, but as a rule try to feed things that are less than half the size of the Mantis

Substrate: The type of substrate is not critically important, Exo Terra Forest Bark, Plantation Soil or Coco Husk are all suitable.

Handling: These animals must be treated with care, they are fragile and must not be grasped or dropped. Simply allow your animal to walk onto you finger if you wish to inspect him, mantis are not animals that like to be regularly handled. DO NOT touch for at least two days after it sheds its skin. If frightened mantis can bite or even grasp you with their arms.

Life span: 12-14 months.

Luzon Leaf Insect (Phyllium philippinicum)

The Luzon Leaf Insect originates from the Philippines and grows to around 70mm to 80mm, females are larger than males. A single pair can be kept in the Exo Terra nano terrarium. The décor of the terrarium need be no more complex than the food plant, which will require to be kept in water to keep it alive. It is not recommended to use plastic plants in the terrarium.

Ideal Temp: 20 - 28°C

Feeding: The Luzon Leaf Insect feeds mostly on brambles or other plants such as rose and ivy. It is very important when collecting food plants to make certain they have not been contaminated by insecticides, this will kill your pet.

Substrate: The type of substrate is not critically important, Exo Terra Forest Bark, Plantation Soil or Coco Husk are all suitable.

Handling: These animals must be treated with care, they are fragile and must not be grasped or dropped. Simply allow your animal to walk onto you finger if you wish to inspect him, leaf insects are not animals that like to be regularly handled. DO NOT touch for at least two days after it sheds its skin.

Life span: 12-18 months.



Florida Giant Katydid is restricted to Florida and Cuba, they grow to 90mm, females are slightly larger than males. A single pair would be ideal in the Exo Terra nano terrarium. Décor should be kept simplistic, in larger terrariums pieces of decorative wood can be included, in smaller terrariums it needs to be no more complex than the food plant..

Ideal Temp: 18 - 35°C

Feeding: Florida Giant Katydid feed on a wide range of plants, a favourite is Buddleia, however, they will also take Bramble or Rose replacing the food as soon as it is spoiled or completely eaten.

Substrate: The type of substrate is not critically important, Exo Terra Forest Bark, Plantation Soil or Coco Husk are all suitable.

Handling: These animals must be treated with care, they are fragile and must not be grasped or dropped. Simply allow your animal to walk onto you finger if you wish to inspect him, leaf insects are not animals that like to be regularly handled. DO NOT touch for at least two days after it sheds its skin.

Life span: 10-12 months.



Livestock Contacts

Fish, Shrimp and Snails

Neil Hardy Aquatica

Evans Corner, Woodmonsterne Lane CARSHALTON. SM5 4DQ

0208 773 2731

Plants

Tropica

Find your local dealer at www.tropica.com

Reptiles & Invertebrates

Euro Rep Ltd

The Cottage in the Wall Dawley Road, Hayes Middlesex

UB3 1EF

Tel: 020 8573 4311 Fax: 020 8561 1650

Monkfield Nutrition Ltd.

Church Farm Barn Shingay Cum Wendy Royston, Hertfordshire SG8 OHJ

Tel: 01223 208261 Fax: 01223 208424

Peregrine Livefoods Ltd.

Rolls Farm Barns

Hastingwood Road, Magdalen Laver

Ongar, Essex CM5 0EN

Sales: Freefone 0800 919631 Sales: 0845 450 7401

Rep-tech

PO Box 1922 Windsor, Berks SL4 4ED

Tel: 01753 830444 Fax: 01753 831551

Strictly Reptiles

Unit E, Oakwood Place Croydon, Surrey CRO 3QS

Tel: 0208 684 3232 Fax: 0208 665 0106

Other Useful Contacts

OATA (Ornamental Aquatic Trade Association)

1st Floor Office Suite Wessex House 40 Station Road Westbury Wiltshire BA13 3JN

Tel: 01373 301353 Fax: 01373 301236

REPTA (Reptile and Exotic Pet Trade Association)

242-244 Havant Road, Portsmouth, PO6 1PA

Tel: 0238 044 0999 www.f-b-h.co.uk

UKAPS (UK Aquatic Plant Society)

www.ukaps.org

Legal Considerations

For some coldwater fish species (such as Rainbow Dace), licences may be required in order to stock and sell them. Contact OATA for details: 0870 0434013

Unlike reptiles, there are currently no legal requirements or restrictions on the stocking or sale of invertebrates.

Responsibile Ownership

Ornamental animals and plants bought for aquariums and ponds must never be released into the wild.

It is the responsibility of the retailer to effectively advise consumers on the correct species for their own unique conditions. The suggestions contained in this document will serve as a useful starting point, but further reading and research is strongly recommended.

