GUPPIES

By Richard James

A free look inside

Selected pages from the current manuscript.
Final proofreading is in progress.

In this sample:
Introduction - original pages 5-7
Feeding your guppies - original pages 89-94
Caring for guppy fry - original pages 137-139

Original page numbers are retained.
The full manuscript contains 198 pages.

Explore the complete eBook at GuppyBook.com.

Introduction

Guppies have been a firm favourite in the aquarium hobby for generations, and it isn't difficult to understand why. They are colourful, active, inexpensive to buy, and available in almost every fish shop you are likely to walk into. There are dozens of different colours, patterns, and tail shapes to choose from, and no two guppy tanks ever seem to look quite the same.

They are also regularly described as one of the easiest fish a new fishkeeper can keep. And this is where things start to get a little complicated.

Guppies can be excellent fish for somebody who is new to the hobby. They don't require enormous aquariums; they eat readily available foods; they are generally peaceful and, provided you buy both males and females, you will probably discover fairly quickly that getting them to breed isn't especially difficult.

Unfortunately, the word "easy" sometimes gives new fishkeepers the impression that guppies are almost indestructible. They are not.

Every day, people buy a handful of beautiful guppies, take them home, add them to their aquarium, and then find themselves wondering why one dies a few days later. A second might follow soon afterwards. Before long, the owner is searching the internet, trying to work out what went wrong. They were told guppies were easy, so why are theirs dying?

There usually isn't one simple answer. Sometimes the aquarium itself is too new. Sometimes the water is unsuitable. Guppies generally do far better in water containing plenty of dissolved minerals than they do in very soft water, yet many new keepers have never even heard of GH or KH.

The fish may have been stressed by transport. They may have arrived carrying parasites or disease. Perhaps the aquarium contains too many fish, the filtration is struggling, or a male is relentlessly chasing the females.

Occasionally, several small problems combine until eventually the fish simply cannot cope.

None of this means guppies are difficult fish to keep. It simply means that, like every other living creature we bring into our homes, they have needs that must be understood. My aim with this book is to help you understand those needs without turning you into a water chemist, fish veterinarian, or genetics expert along the way.

We are going to start right at the beginning. We will look at what guppies are, where they originally came from, and why the fish swimming around our aquariums today can look so different from their wild ancestors. We will look at how to choose healthy guppies, how many you should buy, and whether you might be better off starting with males, females, or a mixture of the two.

That last decision is more important than you might imagine. A small group of guppies can become a very large group remarkably quickly. If you buy males and females without thinking about what will happen to all the babies, you may discover that your relaxing aquarium hobby has suddenly turned into a small-scale guppy production facility. We will deal with that too.

Before any fish enter the aquarium, we will look carefully at the tank itself. We will cover aquarium size, filtration, heating, lighting, plants and decorations, along with the all-important process of cycling the aquarium.

Water chemistry will also get the attention it deserves. Terms such as pH, GH, KH, ammonia, nitrite, and nitrate can sound intimidating when you first encounter them, but none of them are especially complicated once somebody explains what they actually mean. You do not need a degree in chemistry to keep guppies successfully. You just need to understand which measurements matter and what your fish are trying to tell you.

Later in the book, we will move on to feeding, everyday maintenance, behaviour, tank mates, breeding, and raising fry. We will also spend a good amount of time looking at health.

Not every guppy that hides, clamps its fins, or stops eating immediately needs medication. Sometimes the fish is sick. Sometimes the aquarium is the problem. Learning to tell the difference can save you a great deal of frustration and, more importantly, may save the life of your fish.

Towards the end of the book, we will look at selective breeding, strains, and some basic genetics for those who find themselves becoming completely hooked on guppies and want to take the hobby further. You certainly don't need to become a breeder to enjoy keeping guppies, though. A well-planted aquarium containing a colourful group of healthy guppies can be incredibly enjoyable in its own right.

And that really is the goal of this book. I don't want you to memorise dozens of numbers or spend every evening testing the aquarium water and worrying that something is 0.2 outside somebody's recommended range. I want you to understand what your guppies need, recognise when something isn't quite right, and feel confident enough to make sensible decisions about their care.

By the time you reach the final page, hopefully guppy keeping will feel considerably less mysterious than it did when you started. More importantly, I hope you will have a tank full of healthy, active guppies that are doing considerably more than simply surviving.

They should be thriving.

And when that happens, they will usually be expecting one thing. Food.

In the next chapter, we are going to look at what guppies actually eat, which foods are worth buying, how often they should be fed, and how to avoid one of the easiest mistakes in fishkeeping: giving them far more food than they need.

Feeding Your Guppies

Feeding guppies is one of the easiest parts of keeping them, but it is also one of the easiest things to get slightly wrong. Guppies are enthusiastic feeders.

Once they have settled into the aquarium, they will normally appear at the front of the tank the moment you approach, and if food is offered, they tend to behave as though they haven't eaten for several weeks.

Unfortunately, enthusiasm and hunger are not quite the same thing. A guppy that eagerly accepts another helping isn't necessarily telling you that it needs more food. It is simply behaving like a fish that has learned food may be available, and there is no guarantee that another opportunity will come along later. In the aquarium, of course, another opportunity probably will come along later. Quite possibly several of them.

This is why feeding is less about persuading guppies to eat and more about providing a good variety of suitable foods without giving them far more than they need.

What Do Guppies Naturally Eat?

Wild guppies are opportunistic feeders and will take advantage of a wide range of small foods available in their environment. Their diet can include algae and other plant material, tiny aquatic organisms, insect larvae, small invertebrates, and organic material they find whilst picking around their surroundings. They are therefore best thought of as omnivores rather than strict carnivores or herbivores. That is useful for us because it means we don't need to provide one very specialised type of food. A varied aquarium diet containing both animal-and plant-based ingredients suits them well.

You may notice your guppies continually pecking at plant leaves, wood, rocks, and even the aquarium glass. They aren't necessarily eating the plant or decoration itself. Aquarium surfaces gradually develop thin layers of algae, microorganisms, and organic material, often referred to collectively as biofilm, and guppies will happily investigate these throughout the day. This natural grazing is one reason a mature aquarium can provide more feeding opportunities than it first appears. It does not mean you can stop feeding the fish altogether, but it does mean their diet isn't limited to the few minutes when you stand over the aquarium with a pot of food.

Flakes or Pellets?

For most guppy keepers, a good-quality prepared aquarium food will form the basis of the diet. Flake food has been used for generations and remains perfectly suitable. It is easy to find, easy to portion, and can be crushed into smaller pieces for juvenile fish.

The main thing is to choose a food intended for small tropical omnivorous fish rather than simply buying the cheapest tub available. Look for a product with a sensible mixture of quality protein sources, together with plant-based ingredients, vitamins, and minerals.

The size of the food matters more than many people realise. Guppies have relatively small mouths, particularly young fish and smaller males. If pellets are too large, the fish may repeatedly grab them and spit them back out because they cannot swallow them properly. Food that is slightly too large can usually be crushed, but it is easier to buy an appropriate size in the first place.

Watch what happens when you feed. If most of the food is being eaten quickly and easily, the size is probably suitable. If half of it falls untouched to the bottom while the fish struggle with a few oversized pieces, try something smaller.

Variety Is Better Than One Food Forever

A complete commercial food can provide the bulk of a guppy's nutritional needs, but I would still rather offer some variety than feed exactly the same product at every meal for the fish's entire life. This doesn't require a cupboard full of twenty different foods. Two good prepared foods with slightly different ingredient profiles, supplemented occasionally with frozen or live food, can provide plenty of variety.

Frozen foods such as brine shrimp, daphnia and bloodworm are widely available and can make useful additions to the diet. They are normally sold in cubes, and for a modest guppy tank, one whole cube may be far more food than you need. Break off a smaller amount instead. It can help to thaw the portion in a little aquarium water before feeding so it can be distributed around the tank rather than dropping one frozen lump into the middle.

Bloodworm is particularly popular with fish, but I would treat it as part of a varied diet rather than something guppies need every day. The same principle applies to other rich foods. Variety means using different foods sensibly, not trying to cram as many high-protein meals into the fish as possible.

Live foods can be excellent too. Live baby brine shrimp, daphnia, and mosquito larvae from a safe, cultured source, and other appropriately sized foods encourage natural feeding behaviour and can be particularly useful when conditioning breeding fish or raising fry.

The source matters. Collecting live foods from an unknown pond or water butt may bring unwanted organisms into the aquarium along with the meal. Cultured foods from a reliable source remove much of that uncertainty. You certainly don't need to feed live food to keep healthy guppies, but it can be a useful addition if you enjoy that side of the hobby.

Do Guppies Need Vegetables?

Because guppies are omnivores, some plant-based material should be included in their overall diet. That doesn't necessarily mean you need to prepare a salad for them every evening. Many good commercial guppy and tropical fish foods already contain algae, spirulina, or other plant ingredients. If the aquarium also contains some natural algae and biofilm for the fish to browse, a reasonable amount of plant material may already be available.

You can occasionally offer small amounts of suitable vegetables as well. Softened courgette, spinach, or peas are sometimes used by fishkeepers, although anything added should be prepared appropriately and removed if it isn't eaten. The main danger with fresh vegetables is not that guppies cannot eat them. It is forgetting a large chunk of vegetable matter at the bottom of the tank and allowing it to decay.

A guppy needs an astonishingly small amount of food compared with the portion of courgette we might casually drop into an aquarium. If you offer fresh food, keep the amount modest.

How Much Should You Feed?

This is where feeding advice becomes frustrating because people understandably want a precise answer. “How many flakes does a guppy need?” Unfortunately, flakes come in different sizes, pellets vary enormously, and individual fish are different sizes too. The familiar advice is to feed “as much as the fish can eat in two

minutes” isn't completely useless, but it can still result in an enormous amount of food entering a tank full of enthusiastic guppies.

A better approach is to start small. For healthy adult guppies, one or two small meals per day is a perfectly reasonable routine. Each meal should contain enough food for the fish to eat readily without a significant amount drifting into plants or settling on the substrate. With micro-pellets, you may be surprised how little that actually is.

Watch the fish feed and learn what disappears quickly. If every pellet is eaten and the guppies continue searching afterwards, that doesn't automatically mean you underfed them. Fish naturally continue looking for food. Their stomachs are not enormous, and they don't need to finish every meal with visibly swollen bellies.

It is usually safer to feed slightly too little than considerably too much. A healthy adult guppy can cope perfectly well with an occasional light meal. The aquarium has a much harder time coping with food being poured into it faster than the fish can use it. If food regularly reaches the bottom uneaten, reduce the amount.

If you have other species in the tank, the situation becomes a little more complicated because you need to make sure everyone gets their share. Fast-moving guppies can be extremely good at intercepting food before slower tank mates get near it, so you may need to distribute food across several areas or use sinking foods for bottom-dwelling species.

The Problem With Overfeeding

Overfeeding causes problems in two different ways. The first is obvious: constantly giving a fish more food than it needs is not particularly good for the fish. The second problem occurs in the aquarium itself.

Every extra piece of food eventually has to go somewhere. It may be eaten and turned into fish waste, or it may sink into the tank and begin decomposing. Either way, excessive feeding increases the amount of waste the filter and maintenance routine have to deal with. This can contribute to higher nitrate levels and, in a poorly established or heavily stocked aquarium, may help push ammonia or nitrite beyond what the biological filter can process.

It can also make the tank physically dirty. Uneaten food becomes trapped under decorations, accumulates in the substrate, and clogs filter sponges. The solution is not to deliberately starve the guppies. It is simply to recognise that feeding the fish and feeding the aquarium are essentially the same thing. Everything you put into the tank eventually becomes part of its waste load.

This becomes particularly important once you have a large group of growing fry. Feeding dozens of young guppies several times a day can introduce a surprising amount of food, which is one reason breeding tanks often require more frequent maintenance than an ordinary adult display tank.

Feeding Fry Is Different

Newborn guppies are small, but they are already free-swimming and ready to feed. Because young fish are growing rapidly, they benefit from smaller meals offered more frequently than we would normally give adults. Their tiny size also means the food has to be correspondingly small.

Finely crushed flake food can work, as can specialist fry powders and very small prepared foods. Newly hatched brine shrimp are particularly useful because they are small enough for many guppy fry to eat and provide an excellent live food for growing fish.

A typical fry-feeding routine may involve several very small meals throughout the day rather than one or two larger feeds.

Breeding Guppies Made Simple

The first time you spot a newborn guppy hiding amongst the plants, it is very easy to forget everything else happening in the aquarium. They are tiny. Almost impossibly tiny when you compare them with the adults swimming around them, yet within minutes of being born, they are already moving through the water and looking for food.

Fortunately, guppy fry are not especially difficult to raise. They don't begin life as helpless larvae that need to survive on a yolk sac for several days, and there is no complicated first-food stage where only one microscopic organism will do. They are born as miniature, free-swimming fish and can begin feeding almost immediately.

The challenge is not so much keeping one or two fry alive. It is providing the food, clean water, and space needed to raise a large number of them well. There is an important difference between the two. If a handful of babies appear unexpectedly in a planted community aquarium, you may need to do very little. If your aim is to raise an entire brood of thirty or forty youngsters, the aquarium can become considerably busier very quickly.

Where Should the Fry Live?

There are several perfectly reasonable ways to raise guppy fry, and the best option depends largely on how many you want to save. The simplest is to leave them in the main aquarium. In a well-planted tank, particularly one containing floating plants, mosses, or dense fine-leaved vegetation, some fry will usually find enough cover to avoid the adults. They spend a lot of time close to the surface and amongst plant roots, darting into thicker growth whenever something larger comes too close.

This approach works extremely well if you are happy for nature to decide roughly how many survive. You may lose some fry to the adult guppies and other tank mates, but those that avoid predation can grow perfectly well in the main aquarium, provided they get enough food.

The difficulty comes when you want to save most or all of the brood. In that situation, a separate rearing aquarium is usually much easier to manage. A fry tank doesn't need to be enormous or beautifully decorated, but it does need to be cycled and capable of maintaining stable water quality. A simple setup with a mature sponge filter, a heater where required, and some plants or other cover can work extremely well. The sponge filter is particularly useful because it provides gentle biological filtration without creating an intake powerful enough to pull in newborn guppies.

A bare-bottomed tank can make cleaning easier because waste and uneaten food are immediately visible, although there is nothing wrong with using a thin layer of substrate if you prefer a more natural-looking setup. What matters far more than the decoration is water quality. A beautifully aquascaped fry tank full of ammonia is still a bad fry tank.

What About Breeder Boxes?

Breeder boxes can be useful for very short periods, but I wouldn't choose one as the long-term home for a whole brood. A newborn fry takes up almost no space. Thirty growing juveniles are a different matter entirely. Small breeder boxes can quickly become crowded, food accumulates easily, and the water inside may not circulate as effectively as it does through the main aquarium. Some designs provide much better flow than others, but none changes the fact that the available swimming space is limited.

They can be convenient for temporarily protecting a few fry immediately after birth, especially if you need somewhere safe while preparing another tank. What I would avoid is leaving a rapidly growing brood crammed into a tiny box for weeks simply because they still physically fit. Young fish need room to grow and enough water volume to keep the conditions stable between meals and maintenance.

If you become serious about breeding guppies, a small dedicated rearing aquarium soon becomes much more useful than a collection of plastic boxes hanging around the sides of the display tank.

Feeding Newborn Guppies

Guppy fry are ready to eat very soon after birth. Their mouths are obviously tiny, so the food needs to match. One of the simplest options is good-quality flake food crushed into a very fine powder. You do not need to buy an entirely different cupboard full of food just because the fish are small; many suitable adult foods can be reduced to a size the fry can manage.

Specialist powdered fry foods and very small micro-foods are another option. These can be convenient, especially during the first few weeks, although they have one disadvantage: because the particles are so small, it is remarkably easy to add far too much. A tiny pinch can contain hundreds of particles. If the water begins to look cloudy with food after every meal, you are not feeding the fry more effectively. You are mostly feeding the filter.