



Cliff Neale is a relative newcomer to our hobby but that hasn't stopped him from quickly becoming a household name in the UK. Winning the 2003 BKKS Grand Championship certainly brought him to the fore. His overwhelming thirst for knowledge marks him out as somebody special. Always happy to explain how any of his ponds and filter systems work, equally open about his experiments that have failed and just as eager to sound out your opinion and listen to another point of view. That's the man that I christened an Anorak on the second time of meeting.

Far from being lonely, Cliff is very welcoming and prepared to challenge any of the preconceived notions of our hobby by calculated experiments, scientific research and analysis. It was while accumulating some new data on our second meeting that I gave him the nickname I have lived to regret.

In October this year, I introduced Cliff to Martin Plows who was given a tour of the Neale facility. Like many of us, Cliff's first pond was an ornamental addition to his back garden, a circular raised pond on the rear patio with a modest built-in filter and some incorporated planting bays. These days the pond is linked to his main pond and benefits from the heating and the by-products of the main filter system. Evidence of this is very apparent by the size of the Arum Lilies that now grow in the planting bays, towering over the three of us as we looked at the fish that Cliff still keeps in there (eight fish from two to four-years-old, average size 55cm). "Pretty fish to please the wife" was Cliff's description of the inhabitants.

"Look after the water and the Koi will look after themselves," added Cliff. He continued to inform Martin that the nitrate levels in the system were 16ppm. He puts this down to the Bakki shower filtration units and the Arum Lilies in the outside pond.

Cliff has a number of ponds and filter systems. His total pond capacity is 33,500. Several of the ponds share common filtration units and water is regularly exchanged between systems after being treated via an ozone unit. He states that having got the water right it would be pointless to waste it. Subsequently his daily water changes for his total facility add up to just 400 gallons.



An Anorak is a slang term used to describe a person obsessed by details. It's usually applied to 'train-spotters' - lonely individuals that haunt railway stations noting down the number of the passing trains

The water parameters are managed from the point of entry throughout the whole set of systems to the final discharge. Mains water is treated via a pre-filter and then an activated carbon filter before being diverted to two other means of treatment. Approximately 50% goes through a standard household water softener before being processed by a reverse-osmosis unit after which is it re-mixed with the non RO water before being added to the various pond systems. Cliff monitors the output of the combined inputs to ensure a permanent inflow of water with a TDS reading between 90 and 95ppm.

Moving from the original pond into the main fish house the first new pond you'll see is the very latest, a two to three thousand

gallon quarantine/hospital pond that Cliff also uses for raising fry and growing them on. Nearby was an empty 2.5metre show vat that Cliff had used for breeding earlier in the year. The variable capacity of the pond is a design feature of Cliff's that allows him to regulate it to suit any treatments that he might use on ailing fish. This pond has its own four tier Bakki Shower for a filter unit which is located

near the Ozone unit which can be connected into the system if needed.

The Q pond butts up against the main pond at its narrowest extremity and the noise made by the filters of these ponds reminds me instantly of the fish houses of Niigata. The main pond is a massive 18,000 gallons filtered by six vortex chambers of Kaldness, 4 x 4 tier Bakki showers and a bubble bead. This pond is home to the 2003 National GC and several other fish of almost equal size, including several of Cliff's first ever purchases from his first trip to Japan. One of which is a Yamabuki that now measures 83cm. But before we can get to talking about the fish, Cliff goes on to explain how the water in this pond is

The Anorak strikes back



filtered. Each of the five bottom drains is connected to a separate filter, four directly to a conventional three chamber filter filled with Kaldness and the fifth to the bubble bead before being pumped on to the Bakki Showers

discoloured and a fine growth of a gloopy type of blanket weed is evident in the top trays. However, there are no signs of any fish waste or detritus accumulating anywhere inside the filters. Neither is there any in the pond. Cliff lifts the lid

feeders have dispensed food twice. Cliff is convinced that carp like to browse and therefore his feeding regime is designed to give them the opportunity. His feeders come on 22 times a day during daylight hours sending a little food into an area

where the fish have become accustomed to finding it. A carefully positioned air-dome sends up a column of bubbles that prevents uneaten food from being collected by a skimmer. The noise of the feeders attracts the fish but there is

Cliff has two, well thought out, goals for the future. His short-term goal is to grow a Japanese Tosai to 80cm in the UK, and he believes that he might achieve that in the next two years. He shows us several fish in the main pond that were

to above the 80cm mark, which he considers to be a more long-term objective.

Growth is one area that Cliff is keen to understand. He cites his work experience as an engineer



so that all water is passed over the Bakki Showers before being returned to the pond. The total turnover is 17,500 gallons per hour.

The Bacteria House Media (BHM) that fills these systems is slightly

over the vortex chambers and shows us what has collected there – absolutely nothing, and they haven't been pulled for a couple of days.

In the short time that we have been looking at this pond the automatic



Caption:

no mad rush to reach the food. The fish seem content to just take a mouthful as it floats past. Cliff goes on to explain that this continuous feeding keeps the associated ammonia spikes low and regular, which he believes has a positive effect on the filtration.

bought as Tosai and are now around 60-65cm after just one year. He then adds that another of his future challenges is to see if he can grow his fish faster than Momotaro, the aim being to grow a spring Tosai to 60cm in a year. His second objective is to grow a homebred Koi

specialising in thermal dynamics and hydraulics, before moving to the food industry as a sound basis for studying the growth of Koi. However, he is quick to point out that this must not be at the expense of quality. Here, he is quite modest saying that he hasn't got the 'eye' to





Caption:

pick Tategoi, but he believes he now has the ability to select fish with the potential for growth.

The fish in the main pond fall into three distinct groups. The largest being 'the collection'. Cliff's fish picked for preference and enjoy-

ment. Most of these are over 75cm and include Tancho, Yamabuki, several Shiro Utsuri, Go-Sanke and a Midorigoi. I have been nagging Cliff about this Midorigoi as in my opinion it is the best in the country. Cliff's had it for a couple of years now and it has retained a perfect body shape, unusual for a Doitsu Koi. Normally I find this fish in one of the other ponds but at last he has put it in the main pond. The next group are a number of Go-Sanke around the 60-65cm mark which are part of Cliff's growing on experiment. Cliff can tell you how old each one is and what its size was when it first arrived? The final group are two or three tatty looking Showa that Cliff is looking after for



Mike Snaden (Yume Koi) that they intend to use as eventual brood stock.

Moving on from this pond we head for the fish-house, but before leaving I point out to Martin an array of fry-culling nets neatly arranged and displayed on the wall; definite evidence of an Anorak's residence.

The fish house contains four ponds, two of 500 gallons each, one of 1,000 and one of 1,500. Here, by controlling feeding and filtration, Cliff obtains and compiles a lot of the data that fuels his rationale for the growth experiments. The house is also famous for the ledgers that contain daily logs of all the ponds both inside and out water parameters. In addition to the written ledgers are computer files containing photographic and video records of fish and microscope slides taken over the years (a veritable library of data covering all aspects of Koi keeping). The ponds contain a mixture of fish including some home-breds. One pond contains a number of Tosai left by Mike Snaden for Cliff to grow on, a symbiotic arrangement wherein Cliff gets fish to play with, while Mike gets larger fish to sell later in the year. Another contains 20 Sanke that Cliff is attempting to grow larger than Momotaro. The final tank contains a number of Momotaro Tosai that are to be auctioned to the Kennet Valley BKKS (Cliff's section) for just £25 each, another part of the beneficial arrangement with Mike.

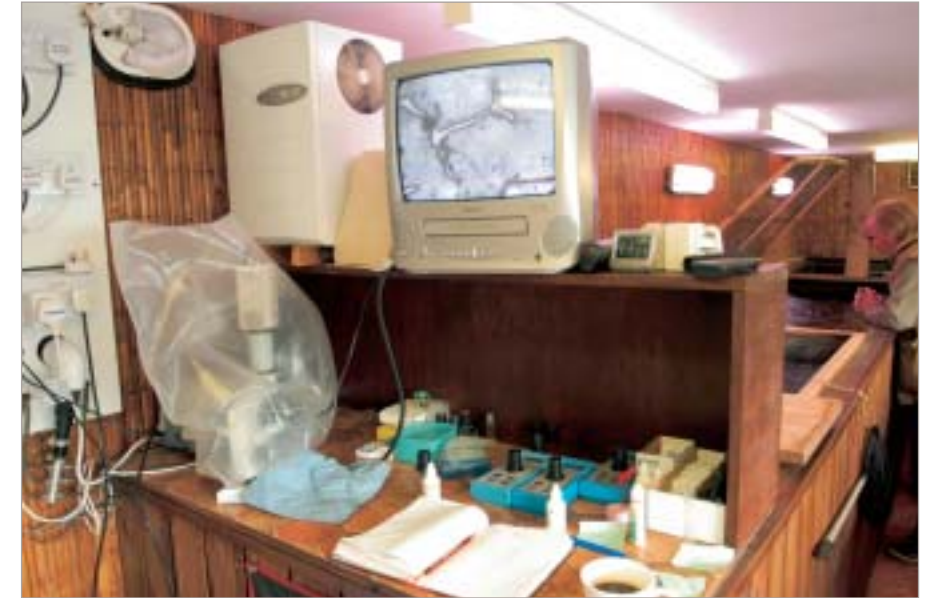
The final pond Cliff refers to as the 'Growth' pond and has been especially designed to provide the ideal environment for optimum growth, i.e. heat, depth, water movement and exercise. The pond contains 8,000 gallons and is filtered by six three-tier Bakki Showers. The water movement is produced partly by the pond turnover via the filters (12,500gph) and partly by the six air-domes at the far end which create a flow that runs from top to bottom and front to back throughout the majority of the pond. A resting area at the end

below the filter returns of a metre running the width of the pond has been incorporated into the design. The fish are fed eight times a day. On the day of the visit this pond contained some fish that Cliff was growing on for eight people, as well as some males of his own, including the BKKS 2003 National Baby Champion.

Behind the 'Growth' pond is a room where a considerable part of the water treatment is carried out. Several bubble beads are apparent and this is where the incoming RO water is mixed before being added to the systems. This is also where the water is extracted to go to waste, however before going down the drain Cliff is running it through a small packing crate container where a dozen or so small fry are living. "Waste not - want not" is definitely his motto where water is concerned. In this room is a small four chamber fibreglass standard garden-centre filter that Cliff uses for further experiments. Last time I was here it contained Kaldness and he was experimenting with a self-cleansing method. Now the system has been turned over to a submerged BHM experiment. Cliff always apologises to people when they enter this room for its 'Heath-



William Heath-Robinson 1872-1944, an illustrator and artist famous for his drawings of complex and convoluted contraptions involving pulleys, pipes and string



Caption:

Robinson' appearance. Admittedly there are numerous arrays of pipe-work running in all directions and the odd pump or piece of equipment stacked on a pile of bricks, but the place is spotlessly clean. We discuss heating here and Cliff informs me that the whole system is run via one boiler and three separate heat exchangers.

We complete the tour by visiting another shed where Cliff stores his food and equipment. It is also the room where incoming mains water

enters the system and where the water softener and carbon filter are housed. Returning to the main pond we discuss Cliff's forthcoming trip to Japan where he has five fish growing on, four at Momotaro's and one with Oomo. One of which, a Maruten Kohaku is featured on





Medicarp and Nobori premium koi foods, the complete diet of champions. Plus Yamato Nishiki – a great everyday food at a reasonable price.



TurboCleaner – an affordable foam fractionator to keep ponds clear and DOC-free. Two sizes, for ponds of up to 2,000 or 8,000 gallons, at just **£225** and **£325**.



Evolution 2003 electric heater (six sizes). Super-efficient element, digital temperature setting and readout, fail safe cut-out, reversible flow switch. 3KW model only **£299.50**



New LG Supplies refillable multi-test kit. Colour-coded caps. Only **£18.50**



Huge range of pipework and fittings: tees, elbows, tank connectors, swept and 90-degree bends. All your koi pond plumbing needs.

COLOUR CATALOGUE
SENT OUT WITH ALL ORDERS
TRADE ENQUIRIES
**CALL SELECTIVE
KOI SALES**
TEL: 01603 897453
FAX: 01603 898523

BubbleBead Filters

See BubbleBead filters and EstroSieves filtering our NEW 6,000-gallon pond. Running off a low-wattage pump, the four largest models – BBF-3, BBF-5, BBF-7 and BBF-9 – feature twin valve backwashing. On a pump timer, they will flush and refill automatically for complete and near maintenance-free mechanical and biological filtration. The BBF-1 and BBF-2 are ideal for quarantine and hospital tanks.



RED DEVIL PUMPS

Red Devil 45 (900gph) **£329**
RD 65 (1,430gph) **£349**
RD 82 (1,800gph) **£395**
RD 100 (2,200gph) **£435**
RD 120 (2,640gph) **£445**
RD 140 (3,000gph) **£565**



Airline/airdome bottom drains from Alternative Aquatics – the best (as fitted to our own pond) for just **£145**.

ET1 WITH BUILT-IN LASER SIGHTING
Super-refined model with built-in 'red dot' laser sighting for pinpoint accuracy, only **£49**.



◀ TN1



◀ TN2



NEW! The perfect gift. Infra-red thermometers give reliable pond temperature readings, and you don't need to get your hands wet. TN1: Compact infra-red remote thermometer with case and spare battery, only **£24.50**. TN2: Non-contact thermometer with laser alignment, switchable from °F to °C, only **£35**.



High-performance microscopes at low, low prices. All you need to identify parasites. Best selection in the UK.



New from the makers of Medicarp and Nobori – Sakura koi food in 2kg and 4kg packs. Promotes strong reds and high growth – perfect for summer feeding, or year-round in heated ponds. **P.O.A.**

SIMFRAN KOI PONDS

SIMFRAN, run by Simon Francis (left) is the only company SKS fully endorses for that special pond project anywhere in the UK. From design to build, using the latest filter technology, Simon offers free quotes, competitive rates, exceptionally high standards of workmanship and courteous service. Waterfalls, pergolas, paving and decking a speciality. Tel: 01502 581936 Mobile: 0788 4444136



BEECH CROFT, WATERLOO ROAD, HAINFORD, NORWICH NR10 3AX
TEL: 01603 897453 0700 KOIDIRECT FAX: 01603 898523 EMAIL: sksldt@nascr.net
(3 miles north of Norwich Airport off the A140)



Medo Nitto Kohki airpumps, diaphragm-free. Five sizes, 45 to 120 litres per minute. LA45 – **£135**
LA80 – **£235** LA100 – **£275**
LA120 – **£345**.

Something different – flexible magnetic koi, hand-painted by a Japanese breeder, no two are alike. Several sizes and varieties. The ultimate fridge accessory! **£4.50 - £8.50**



RELIABLE NEW BUDGET AIR PUMPS
Air Flow 2 (4 litres/min) **£7.95**;
Air Flow 4 (10 litres/min) **£15.95**;
Air Flow 8 (16 litres/min) **£34.95**. Versions 2 & 4 also available as the Air-Box 2 (**£15.95**) and Air-Box 4 (**£29.95**), with weatherproof protective box, two airstones, airline and spare diaphragms.

WE ALSO SELL...
RECONDITIONED HOSPITAL MICROSCOPES, GRP FILTERS AND QUARANTINE VATS, PURIFIERS, ESTROSIEVES, OZONISERS, AUTO-FEEDERS, BOOKS, VIDEOS, TEST KITS, MEDICATIONS, NETS, BOWLS, MEASURING TANKS, MONTMORILLONITE CLAYS, HEATERS, SKIMMERS, DIGITAL SCALES AND THERMOMETERS, CERAMIC KOI (IDEAL GIFTS) – AND THE REAL THING FROM YOSHIDA FISH FARMS AND OTHER TOP JAPANESE BREEDERS.

Momotaro's 2004 calendar. Martin and Cliff have something in common here, both are looking forward to seeing how their fish have progressed over the past 12 months.

In November, I telephoned Cliff to find out how his trip to Japan had gone and the status of the fish he had left out there. I was particularly concerned about the Showa left at Oomo's in light of the Niigata earthquakes. Fortunately the news is good all round. The Showa was now residing in the UK having been shipped back by Geoff Kemp (Connoisseur Koi). Of the four fish left at Momotaro's, three were returning to the UK in the near future, a three-year-old Sanke, a two-year-old Sanke and a two-year-old Kohaku. The famous Maruten Kohaku is staying out there for another year at least, and most importantly of all Cliff was pleased



Caption:

POND PROFILE

measurements he'd taken over there. He measured the TDS, pH and Kh values at Isawa Nishikigoi Centre, Momotaro, Hiroshima Sakai and one other. If ever I needed a reminder that good Koi keepers are water keepers first and foremost then this was it. Cliff may still be considered a newcomer to the scene by some, but in all my years in the hobby I have yet to find anybody as knowledgeable about the element that is so important to our hobby. The anorak had struck back.

Parting shot

Ever mindful of Cliff's success at Koi 2003 after christening him an 'Anorak', I am saving a few choice words for Martin Plows and Mark Crampton prior to the 2005 AJNPA show. You never know, history might repeat itself.

Bernie Woollands



with the progress and condition of them all. As for new purchases Cliff had bought 10 Tosai from Momotaro and a male Kohaku (for breeding purposes) from Toshio Sakai (Matsunosuke). And then in true Cliff Neale fashion he brought the conversation around to water quality by telling me of the

