

HOT SPOT

英國錦鯉愛好會東南俱樂部



The E-Mag of the South East Section BKKS

- twinned with the :-

Issue 9
June 2007

Oregon Koi & Watergarden Society.

The Nishikigoi Vereniging Nederland.

The South African Koi Keepers Society.

Partners in goodwill.

HOT SPOT

is the on-line version of the South East Section BKKS' newsletter called "Spotlight", suitably sanitised and denuded of in-house content to make it interesting for other Koi Clubs. However, it will also contain some occasional South East publicity.

"Hot Spot" will be a periodic publication i.e. it will get published when we have enough articles to fill it's 8 pages.

Copies of it will reside on the South East's website and will be distributed to other Koi Clubs who indulge us with an exchange of magazines or newsletters.

Articles taken from "Spotlight" are the copyright of the South East Section but may be used by clubs who participate in this exchange.

The original text and photos can be obtained via the editors whose details can be found on the back page.

Inside this issue:

Selected Variety Awards	2 & 3
Kin Gin Rin	4
Gauteng Show	5
AJNPA Show—continued from Issue 8	6, 7 & 8
Confirmation guide	9
Koiji	10
What's new with KHV	11

Koi Clubs participating in this exchange scheme are:-

- Nishikigoi Vereniging Nederland.
- Oregon Koi & Watergarden Soc.
- South African Koi Keepers Soc.
- Chiltern Section BKKS.
- NorCal Chapter ZNA (USA)
- Australian Koi Association AKA
- Mid Atlantic Koi Club
- Cambridge Koi Club
- ZNA Potomac Chapter
- Essex Section BKKS
- Texas Koi & Fancy Goldfish Soc.
- Cayman Island Koi Keepers

This month we feature **the Selected Variety Award**. Something well known in ZNA circles but virtually unheard of in the UK.

The South East Section borrowed this award in 2003 and made it its own within the UK and it has been the reason for increases in the related Show Class ever since. But in this issue we have been fortunate in getting some information from **Nippon Nishikigoi** - a UK based company whose customers have enjoyed consistent success in this category since its invention.

“Selected Variety” Awards.

The Zen Nippon Airinkai (ZNA) have a long standing award at their National Show “the Selected Variety Award” This award was introduced to raise the profile of either a rare or out of favour variety.

The South East Section began copying this idea in 2003 and it has proved both a success in terms of numbers exhibited and in popularity with the exhibitors, the public and the koi trade.

To celebrate this concept ‘Hotspot’ has decided to feature two articles covering both the ZNA’s choice this year – KinGinRin and another about how the South East award is viewed by one of our dealers.

For the ZNA, we have an article compiled by the South African Koi Keepers Society (SAKKS) Newsletter Editor Dian Sunney .

And for the UK an article penned by James Sharp & Simon Austin of Nippon Nishikigoi .

For those that need reminding the South East’s Selected Variety for 2007 is the Goshiki..



“Selected Variety Awards” James Sharp & Simon Austin

At the start of the first year of the selected variety award at the South East show, it was not our soul intention as a koi company to supply fish to our customers for this award. However through the careful selection, raising and conditioning of the koi our customers have enjoyed relative success with this koi show award. This is the key to success in koi across the board and is an area that is a particular passion to us and our customers alike.

In this article we would like to show you the progress and journey of three koi. These are from the last three years selected variety award: Kinki Utsuri, Asagi and Kumonuryu. The koi have achieved second place at each show, and two of them also came first in variety and one achieved a JSC award.

JSC Award!

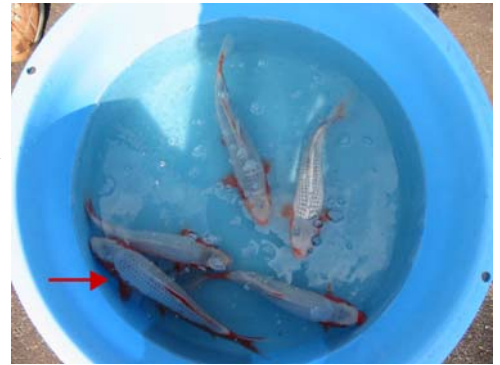
An award presented by the BKKS Judges Standards Committee for an exceptional Koi.

They haven’t achieved any higher placing than this mainly due to body shape which is a hazard of raising Tosai. The sex of the Asagi turned out to be male which compounded the problem of body shape. All koi were relative cheap fish and as for the Kumonuryu it was raised from four inches, so I feel this is a great achievement in its self, especially because of the unstableness of the variety in its pattern.

We start with an Asagi brought from Suda as Tosai around 30cm, as a Narumi Asagi the fukurin is thin, making the reticulation tighter and more uniform. The Hi markings resemble classic Asagi and clear unblemished head is another plus point. This koi in its second year attended the se show; it came second in the selected award and picked up best in size Asagi.

The following year the owner of the koi asked us to exhibit it for him again and it was awarded a jsc award, a testament to how

it was raised by its owner. But at this point the koi had grown around the 55cm mark and being male it lacked body.



The magoi body has stayed with the variety so male Asagi's bodies will always be thin making this koi difficult to build body for koi shows. As I write this article however the koi has now come full circle and has a good body shape, mainly due to the heavy feeding regime to make this koi more desirable for koi shows. Now at Yonsai the koi has a future at shows once more and we hope the owner would like to show her again soon.





The Kin Ki Utsuri was bred by Marasaka, and was nissai when we sold it, and it was exhibited at the se show at around 55cm and San-sai. The owner again had good results from raising her from 45cm in less than 9 months. The koi was female and placed second in the selected variety and first in Hikari Utsuri, the koi lost to a larger fish. The year after the show the koi started to develop black spottiness, this later developed into a reticulated



effect over most of the body of the koi which is undesirable for this variety at koi shows. This is a hazard of this variety and many metallic fish as they are not as highly bred as Go-Sanke and therefore generally more unstable long term.

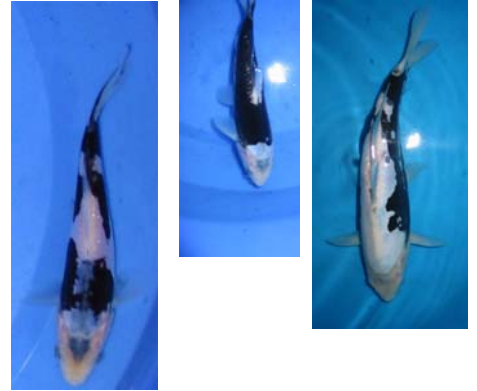


The Kumonryu was from Suda, this was brought at four inches we have a comprehensive photo library of the progress of this koi. We raised this koi for two years then sold it to a customer, who showed at the 2004 show the koi came 2nd in Kawarimono. Later that winter we purchased it back off the customer, due to him moving and then for a following 18 months we raised this koi. We finally gave in to pressure and sold it to a customer who then entered it into the SE show.



That year's selected variety was Kumonryu and the koi took second place, missing out the 1st place because of the body shape, the head is a little pinched to its body size. A note to

look out for this in selecting koi is the head and mouth size. The koi eyes are very small for the size of the koi and the head a little short. The pattern has changed dramatically especially from Tosai to nissai, this makes keeping this variety always interesting. The skin has always been exceptional, and again it is a shame because this year the koi looked fantastic at the show. Just knocked by its body shape and as this is fundamental in high quality koi, this koi has no future in koi shows.



The selected variety award has proved popular with hobbyist keen on showing, as all sizes of the variety are judged together for 1st, 2nd and 3rd place. The award may not seem as important to many as maybe the best in size or adult / mature champion, but good results can be had on fairly inexpensive koi and this attracts new people into showing their koi. With the standard of Go-Sanke being at a very high level at the south east show, such award brings another aspect for all to enjoy.



“Kinginrin - the ZNA Selected Variety for 2007

As mentioned in last month's KOISA, the special variety that has been chosen by Japan for 2007 is the KINGINRIN variety, and as in the past, we will follow suite.

This month we focus on one of the more rare Ginrin, the Pearl Ginrin (Tsubo-Gin or Tama-gin). A Pearl Ginrin has glittering lines of silver-dotted scales, like a pearl necklace. The scales have sparkling round centres that appear to rise above the surface.

Pearl Ginrin begin to have glittering dots when they reach approximately 4 – 5 cm. The pearl dots develop into two or three lines, sometimes five on each side of the

body. The brighter the glitter becomes, the longer the lines extend toward the tail.

In 1929 Ginrin (meaning silver scales) were introduced to the public when they were exhibited at the 1st Yamakoshi Koi Show in Japan. Among them were some Pearl Ginrin that made their sensational appearance and many breeders were hooked. After many years of breeding and perseverance, the quality of the Pearl Ginrin has improved and production has increased.

Kazuo Sekiguchi, Sekiguchi Koi Farm in Niigata was one of the breeders who was fascinated with Pearl Ginrin when he came across an elegant specimen about 30 years ago. At that time, the striped silver type Ginrin was called Dia Ginrin. He was enchanted by a tosai Pearl Ginrin and decided to produce a more improved line. His first breeding trial produced only 30 Pearl Ginrins of which a few parents were selected. In a few years, some brilliant Pearl Ginrins were produced. However, after ten years the breeder began to have trouble with body formation because of continued breeding and he discontinued the breeding of Pearls

4 Years ago, he casually bred a 25 year old female Pearl Ginrin Sanki with a 27 year old. They began to have many enquiries for these babies and have thus re-started the production of Pearl Ginrin.

The Pearl Ginrin's refined look is truly worth of the name, “jewels under water”!

Dian Sunney



This article was first published in the December 2006 edition of the **SAKKS** magazine

KOISA

“It’s show time again - Gauteng South Africa”

Mike Harvey

With the Tetra Koi Excellence South African National Koi Show being held in KwaZulu Natal in 2007, the Gauteng Province hosted their Koi Show at the Cresta Shopping Mall in Randburg over the weekend of 19-20 May. The English style show attracted an even larger entry than last year with 591 koi which were placed in the 60 vats. Unlike last year, the weather played along and the crowds poured in on Saturday morning and Sunday. This year’s show was kindly sponsored by Edeni Koi Farm and their Gauteng Distributor, PetMasters.

This year the Judges were Mike Harvey (ZNA Assistant Certified Judge, South Africa), Harry Beckx (ZNA Assistant Certified Judge, South Africa), Louis Vanreusel, (ZNA Local Certified Judge and BKKS Certified Judge, Belgium), Steve Drake (AKCA Certified, USA), Christine Woolger (BKKS Certified Judge, UK), Brian Welch and Rene Schoenmaker (both ZNA Local Certified Judges South Africa) and Maurice Fine (SAKKS Certified Judge), with Guus Roijen from Holland as a Trainee Judge. They debated long and hard over the Grand Champion, with two candidates being in the running – a 75 cm Kinginrin Kohaku owned by Brian Lee and a 64 cm Sanke owned by Angelo Kondes. In the end the Kinginrin Kohaku was awarded Grand Champion, giving credit to the fact that it was 11 cm larger than the superb but much smaller Sanke, which won Reserve Grand Champion. Jumbo Grand Champion went also to Angelo Kondes for his other Sanke. Mature Champion went to a Goshiki entered by Brian Lee, Junior Champion went to a Sanke owned by Jim Phillips who also won the Baby Champion with his Kohaku.

In recognition of his excellence as Chief Benching Officer and organizer of the Judging Team Assistants, Raj Lalloo received the Chairman’s Award, which all agreed was richly deserved.

The Show Site was redesigned this year with an additional area being made available by Cresta Shopping Centre. The show vats were arranged in a large rectangle with the dealer and courtesy stands arranged around the perimeter, and this worked very well, despite posing a huge area for the judges to cover. In fact one of the netters assisting the judges had a pedometer attached to himself and at the end of the judging disclosed that the judges had covered a distance of 7 km during the day!! Who says judges have it easy? During prizegiving Mike Harvey, the

Chief Judge, paid tribute to the entire team of assistants who were superb in all aspects – bowling the entries in advance of the judges, recording results and releasing koi after being judged. Mike commented “this year’s team of assistant was one of the best teams he had ever judged with around the world” – praise indeed for these dedicated members.

On the Sunday morning a ZNA Judging Seminar was held using five Goshiki bred by Edeni Koi Farm who kindly supplied them for this purpose. Known for their superb white skins, these Goshiki posed a good challenge to those attending the seminar.

Congratulations must go to the SAKKS Chairman, Kevin Harrison, SAKKS Vice Chairman and the Show Chairman, Dave Sunney and all those who assisted them in making this year’s show one of the best ever held in Gauteng



英國東南地區錦鯉俱樂部

Well we left the show and headed for Tokyo Station to catch the Shinkansen (Bullet Train) to Nigata where we were going to spend the next three days. Travelling on these trains is another part of the Japan experience that you have to see to believe it. These trains travel at speeds of nearly 200mph and you just don't have a clue that you are travelling at such a high speed when you are on board.



Tokyo station is the end of the line and as the train approaches a troop of cleaners wait to pounce to get the train ready for its next journey.



They manage to get it all ready in about 5 minutes, the funniest thing is that all the seats face the same way as the train is travelling and when they have cleaned the train rather than the train being turned round they spin all the seats round to face the other way.

Anyway, enough talking about the trains or you will be accusing me of being a train spotter and I think that might be classed as being more of an anorak than being a koi keeper.

The journey from Tokyo to Nagaoka, which is in the Nigata prefecture, takes approximately two hours.

We were staying at the New Otani Hotel for the next four nights which is a two minute walk from the station. It was quite a nice base as it is only about a 20minute drive to reach the bottom of the mountains and to start seeing all the famous koi breeders you hear so much about.

On the Monday morning we picked up the hire car and headed straight off to the mountains, I was really looking forward to this as I had only been down south on my two previous visits and had no idea what to expect.



Our first stop was at the famous Koi museum in Ojiya, I had heard all the terrible reports about how badly damaged it had been by the earthquake in 2004, but as we drove up it was a pleasant surprise, you would not have a clue that it had suffered so much just over two years previously, it has since been repaired without trace of those terrible times. The only reminder is a video which is playing, that tells the story of the events of that dreadful day that wiped out so many peoples livelihoods and homes, yet after all that, they have still bounced back and life goes on as normally as possible, it is a true sign of the strength and determination of these remarkable people.



Andrew Glazzard, Mark Gardner and Mike Snadden at the Nishikigoi Museum.

In side there is a lot of information about the history of Nigata and the koi breeders who reside there, along with a large pond somewhere in the region of 40,000gallons, which houses a lot of very nice koi



Outside there is a beautiful water garden just like I am going to have in my back garden (one day).



We spent about an hour at the museum, which is well worth a visit if you ever find yourself nearby.

The thing that amazed me most was that it was just two years since the earthquake and yet there is hardly any signs of it, nearly all the roads and tunnels had been rebuilt and the mountain sides shored up, the best they can be, the only real construction we witnessed was streams and rivers being diverted through newly built manmade structures and one road that was still undergoing repair, not bad in two years.



Niigata Prefecture official symbol

As you drive along the mountain roads it is hard to believe the amount of koi breeders you stumble across, some of them you know from old and some you have never heard of. The main difference that I noticed compared to

when I have been down south was how small the farms are, a lot of them have premises smaller than a lot of uk koi dealers, but I am sure that the key thing here is the mud ponds that they have access too. Everywhere that you drive there are mud ponds, some in the most precarious places, hundreds and hundreds of them. As you can see from the pictures they were all frozen over, although the Japanese were having a much milder winter than normal pretty much the same as we have been experiencing.

What was quite amazing was that we saw a truck parked on the edge of a mountain it looked as if it had slid off the road on the ice, but as we looked down the slope below it we spotted a man tending to his mudponds, he must have been keeping his koi in them over the winter months despite the freezing temperatures and snow. Now what is it we are all told about how koi are not coldwater fish so we should heat our ponds! I think next time I see the subject crop up on one of the forums I will have to remind them of my experience, I think it should promote some quite interesting conversation.

Some of the breeders that we visited in Nigata, although not all were open were,



Kosugi, Isa, Torazo, Miyaishi, Hiroi, Yagenji, Shintaro, Yamamatsu, Ikarashi Kazuto, Yamanakaoya, Miyatora, Izumiya, Kaneko, Mano, Dainichi, Izumiya, Kazuto and Shinoda.

A few of the breeders that were not around when we visited we were able to make appointments to go back and see at a later date if we had seen something of interest, and some of the others it was quite clear from the lack of koi in the ponds, had already sold most of there stock, they are so trusting you can just go up to a greenhouse open the doors and wander around even if the breeder is not about, then if you see something that you fancy you can phone and make arrangements to come back and have them bowled and find out the prices

One of the breeders that we found interesting was Ikarashi Kazuto, he had a very nice five year old kohaku and a four year old showa but the prices were very nice too, we then found a pond of very nice two year olds and in there were a few very nice sanke's we had some of these bowled and eventually Andrew Glazard and myself decided on two of them, one each, the exciting thing about this is that they are both staying out in Japan for the summer to grow on in the mud pond, now normally when you choose a koi you don't get to see how the ones that you discarded turned out but on this occasion we will find out if our decisions were correct

These are the two Sanke's - - -



We saw some very nice Yamabuki Ogon at Izumiya (as you would expect) but he also had some very nice Asagi and Kujaku. It was quite strange when you looked at the water level in his ponds, it was about 8 inches higher one side than the other, it happened during the earthquake, all the ponds had moved but almost by some miracle the concrete had not broken its back and there were no leaks so he just continues to use them but with a little less water than previously.

- - - I will bring you an update once they have been harvested in October. Shintaro had some nice koi available but unfortunately he was not around when we visited and we did not get back there. Hiroi had some very interesting koi on show but sods law was playing a big part and every koi that we asked about was already sold. We also saw the Miyakoya auction house, it was a very impressive set up but unfortunately with the changing times it is now redundant. Shinoda had some very nice Hi Utsuri swimming about but we did not get to see him, one thing that I did learn is why he is called the postman, I had always thought that it was because he was a postman but apparently he earned the nickname because of the clothes he wore made him look like a postman.

Isa had some very nice Showa for sale but at a premium price I think this was probably because they were his best two year olds that he is growing on as pictured below and if he was going to let them go you would have to pay highly for them. We also had the privilege of seeing his Tosai, from memory I think it was something like 9000 in two ponds quite a site to see. This was one of the few places that we saw any evidence of the earthquake, you can see one of the outbuildings at Isa that had fallen down the mountain when the edge had given way.



However one of the funniest moments of the visit was when I asked if we could see his fighting bulls, they are kept in a little barn at the front of his farm. He opened the door and there they were, laying down, two dosile bulls, we ventured inside inside to take a closer look at them, we asked a few questions and took a few photos, and as we stood admiring them all of a sudden the big black bull decided to stand up, well you should have been there as Andrew Glazzard and John Hellens fought to get out of the door first, I think what made it funnier was that they were tethered and behind the wooden bar, so I am not quite sure where they thought it was going to go.



We also had a visit to Dainichi, which I was really looking forward to as I am a great fan of his Showa, and especially after they had just won the All Japan Show, however I have got to admit that I was somewhat disappointed with what I saw, and having spoken to Shigeru Mano, the younger of the brothers who speaks English, I don't know if I would ever spend my money on one of his koi again, I think he is a really rude and arrogant young man who should seriously consider taking some lessons in how to deal with his potential customers, I would not return there in any hurry. It is a real shame because he was the only person on the whole trip that I found to be like this, I suppose as the saying goes 'it takes all types'.

The last breeder that I am going to talk about is Kaneko, and I have to say that in total contrast to young Mano, you could not find a nicer man, he is a real character, funny and friendly and to top that he produces what I think are the best Kujaku in the world. It was the wrong time of year to hope to find some of his best koi still for sale, but having had to make the agonising decision to put my 75cm Kujaku to sleep the week I came away I was not going to go home without another, well it turned out to be twenty two of them as I got a bit carried away, we bowled a few two year olds and I could not decide between two of them so say no more, I purchased them both,



then as we sat having a cup of tea with Kaneko San, I started looking at his Tosai and could not resist buying a couple, well twenty to be precise,

these are now residing in my quarantine pond where they have been for the last four weeks and I can assure you that you can see them growing already, and that is not just me saying that, unbelievable.

Well I am afraid to say, but you are probably glad, that this was the end of my visit to Ni-gata, so it was back on the train to head for our last day in Tokyo.



Kujaku.

I was not going to go home without another, - Well it turned out to be twenty two of them.

Alan Archer 2007

That's my boy! - Ed "

We tossed a coin to decide whether to see the sights in Tokyo or find one last koi farm to visit, guess what? the koi farm won so we headed off to Tani Koi Farm, which isn't to far from Narita International Airport.

When we arrived it was quite clear that a fair bit of equipment used at the All Japan Show was being stored here.

There was not an awful lot of koi for sale, but there was quite a few koi that we recognised in the main pond that had been entered in the show.

I am going to end my tales with a little thing that we witnessed whilst at Tani farm. They also sell reptiles and whilst we stood looking at them we noticed that one of the Lizzards had obviously escaped from its own vivarium and got into the one next door, and, well the picture tells the rest!



Conformation guide:

Antonio Quitoriani.

This topic was taken from the **ZNA Potoamac News** - the newsletter of the **ZNA Potoamac Chapter USA**. However it originated on the **Koi-Bito** forum and some of the subsequent changes came from follow up discussions that it raised.

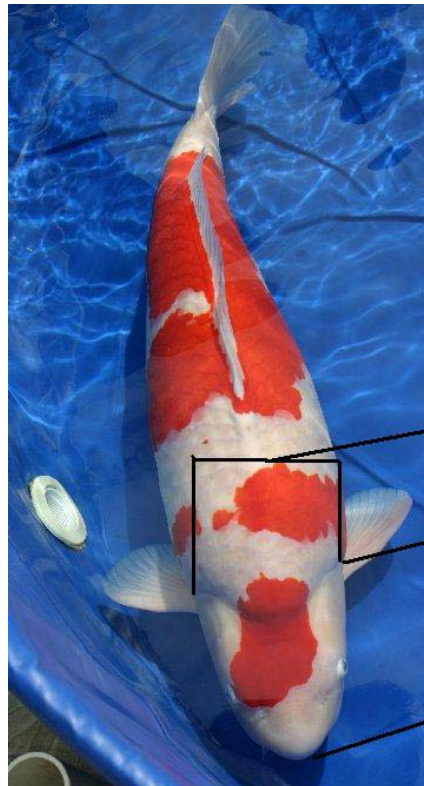
The Kohaku used for the subject matter is the **2006 All Bay Area Grand Champion** owned by Duke Nguyen and photographed by Nancy Morales both, like the author, keen contributors to the Koi-Bito forum.

Conformation.

The word '*conformation*' means shape, form or structure, In using it, we are describing perhaps the most important feature of structured appreciation, the overall figure of the Koi; the shape of the head, body and finnage, the interaction of the proportions of each, and how they work together.

Kate McGill

"Koi Appreciation - the first step page 11".



The length of the body (nose to caudle peduncle) should measure between 4 to 4.5 times the length of the head.

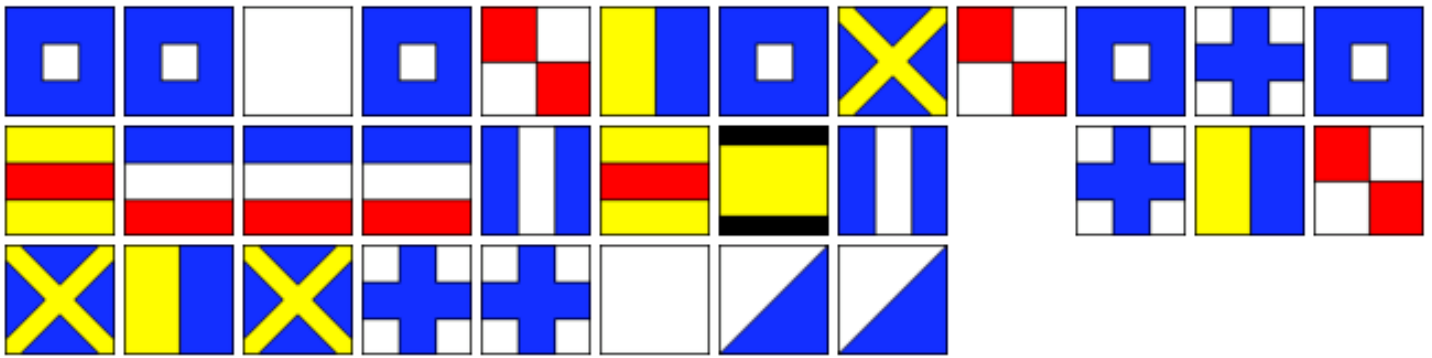
The width of the shoulder should match the length of the head.

Length of head is measured from tip of nose to end of gill plate

The width of the head is measured from gill plate to gill plate.



www.koi-bito.com



“Koiji”

Ever since the Koi hobby arrived in the western world there has been a concerted effort on behalf of the hobbyist to learn more about it. These efforts were severely hampered in the early days by the lack of an easy way of translating Japanese into English. Unlike most other languages that we westerners come into contact with, Japanese does not share the same alphabet. Japanese relies heavily on a Chinese script form known as Kanji.

Unlike our western alphabets Kanji is not phonetic, Kanji characters (approx 4,000 in common use) are ideograms. Each Kanji character is made up of a number of symbols, some of which have more of a historical or mythical significance than any recognisable depiction of an object. So subtle is this symbolism that scholars of calligraphy can make poems or prose from just the way the characters are written on a piece of paper, aligning the symbols within the characters in such a fashion as to be interpreted in a completely different way. Almost like a code.

The use of the word code is a cheap way of making an analogy which I hope will help convey the concept. At the top of the page is a very famous message conveyed in a code.

It is Nelson’s famous address to the men of his fleet prior to the battle of Trafalgar, “England expects that every man will do his duty” written in a form known as the “Telegraphic Signals of Marine Vocabulary,” messages were written with the aid of 10 flags representing the numbers zero to nine (plus a

few more for controls) with each sequence of numbers being a reference to a Signals book where those numbers were assigned a word (eg 253 = England). In later years when shipboard telecommunications were assigned to specialists as opposed to junior officers; the ‘Buntings’, as they were known, could manage the majority of shipboard communications without referring to the book as they were fluent in the TSMV.

When the Japanese attain fluency in Kanji they become unconsciously competent in translating Kanji symbols into thought and language. It is said that you would need to

know at least 2,500 Kanji characters to be able to read a Japanese newspaper.

However, it doesn’t end there. The Japanese learn to write their language in

three separate scripts: Kanji plus two alphabets called Hiragana and Katakana. As powerful as Kanji is, Japanese cannot be written with it alone and has to be complemented by the use of these other alphabets known collectively as Kana. Each has 46 characters which correspond to a phonetic syllable. Kanji is used for Nouns, Verbs and Adjectives, while Kana is used for the grammar. The Kana scripts can be used quite adequately on their own, but being phonetic they can lead to problems in different dialects and regional accents, hence the reliance on Kanji which avoids any ambiguity.

Being phonetic Kana can be easily translated into English by correlating the relevant sounds to one of those in the English alphabet which the Japanese refer to as Romanji. How-

ever, in doing so the nuances of speech, e.g. accents etc will now come into the equation as well as the situations where words sound the same but have completely different meanings. Consider the reverse situation with us having the words to, two and too for example - All sound the same but are written completely differently.

I think it can be safely said that most of our misunderstandings have arisen through translations of concepts conveyed phonetically. The term Go-Sanke immediately springs to mind.

Imagine the scenario of Nelson’s message being carried by word of mouth across the fleet with a Northumbrian relaying it to a Cornishman via Cockney and a Brummie? Thankfully the TSMV like the Kanji character prevents any misunderstanding. These days most young Japanese can speak English and with many youngsters now in the Koi trade we are now able to correct the mistakes of the past.

Peter Waddington has said in many a video and at least one of his books that he can make himself understood when amongst the Koi breeders with what he calls ‘Koi Language’. I am going to stick my neck out and suggest we should call this ‘Koiji’

Bernie Woollands

Ideogram.

“a symbol or picture, which represents and conveys an idea of an object without using its name - e.g. a pictorial road sign”.



In 2005 scientists from Poland, the Netherlands and Germany, Jerzy Antychowicz, Michał Reichert, Marek Matras, Sven M. Bergmann And Olga Haenen, published a study in *Bull Vet Inst Pulawy* 49, 367-373 that reported the following (abstract from the paper):

The presence of koi carp herpesvirus (KHV) infection in Poland was confirmed in common carp reared for consumption. Virus was isolated in CCB cells using cocultivation technique. The carps were experimentally infected and virus was reisolated and identified with PCR method. Monitoring of KHV in 15 carp farms showed the presence of the virus in 4 farms. We have found that lowering of the water temperature to 11-12°C could eventually provoked the recurrence of the disease symptoms in latently infected survivor carp, and thus could help to detect KHV with PCR or cocultivation methods. Analysis of sequencing data of 484 bp fragments of KHV DNA of 4 Polish isolates revealed the complete identity in 3 cases. One of the Polish isolate differed from the remaining 3 variants by 5 nucleotide substitutions. In order to evaluate fully the importance of small differences in DNA sequences of the KHV isolates, corresponding aminoacid analysis, and subsequent virulence studies are necessary.

Jargon or abbreviations:

CCB - carp brain cells

Cocultivation - growing CCB and cells from survivor carp in the same jar. In this case, the survivor cells were leukocytes (white blood cells).

bp - base pairs (in a DNA sequence, either TA, AT, GC or CG).

In 2005, scientists from UC Davis and UC Sacramento, Mark A. Adkison, Oren Gilad and Ronald P. Hedrick, published a study in the *Japanese Society of Fish Pathology*, 40 (2), 53-62, 2005. 6, that reported the following (abstract from the paper):

An enzyme linked immunosorbent assay (ELISA) detected the presence of anti-koi herpesvirus (KHV) antibodies in the serum of koi or colored carp (*Cyprinus carpio*) following either natural or experimental exposures to KHV. Concentrations of anti-KHV antibodies

were detected at serum dilutions as great as 1:62,500 in a population of koi kept in virus-free water for 1 year following a naturally occurring outbreak due to KHV. At serum dilutions less than 1:2,500 cross reactions with a second herpes-like viral agent Cyprinid herpesvirus 1 (CyHV-1) was detected in serum from both experimentally and naturally KHV exposed koi. Passive immunization by administration of anti-KHV antibodies from koi recovered from previous virus infections to naive koi provided only partial and transient

protection to waterborne challenges with KHV. Koi that maintained high levels of serum anti-KHV antibodies after 1 year in virus-free water are deemed as suspect carriers of the virus. The identification of suspect carriers by screening of koi and common carp populations, including potential broodstocks, with the KHV ELISA should improve the ability to control this important viral pathogen.

In 2007, scientists from Israel, Arnon Dishon, Maya Davidovich, Maya Ilouze and Moshe Kotler, published a study online ahead of print in the *Journal of Virology* that found the following (abstract from the paper):

Cyprinid herpes virus 3 (CyHV-3) previously designated carp interstitial nephritis and gill necrosis virus (CNGV), and koi herpes virus (KHV), is the cause of a worldwide mortal disease of koi and carp. Morphologically the virus resembles herpes viruses, yet bears a genome of 277-295 kbp, which is divergent from most of the genomic sequences available in the GenBank. The disease afflicts fish at the transient seasons, when the water temperature is 18-28°C, conditions which permit virus propagation in cultured cells. Here we report that infectious virus is preserved in cultured cells maintained for 30 days at 30°C. CyHV-3-infected vacuolated cells with deformed morphology converted to normal, and plaques disappeared following shifting up of the temperature, and reappeared after transfer to the permissive temperature. Viral propagation and viral gene transcription were turned off by shifting cells to the non-permissive temperature. Upon return of the cells to permissive temperature, transcription of viral genes was reactivated in a sequence distinguished from that occurring in naive cells following infection. Our results show that CyHV-3 persists in cultured cells maintained at the non-

permissive temperature and suggest that viruses could persist for long periods in the fish body, enabling a new burst of infection upon shifting to permissive temperature.

Abbreviations:

kbp – kilo-base pairs (thousands of base pairs)

So what does all this mean?

Antychowicz *et al.* gives us a real clue as to where the virus may be “hiding” when it’s not active in the fish. They were able to re-establish the virus invitro (literally “in glass” outside the fish, in glass containers) by putting white cells from survivors of KHV infections together in a jar where they had a growing batch of carp brain cells. This was done with white cells from the same fish where the group was unable to get the virus to grow invitro in CCB with supernatants (the liquid) from gill and kidney homogenates (think “blender”). BTW, Andy Goodwin said that channel catfish virus probably “hides” in the white cells of those fish when it’s not active. It’s also a herpesvirus.

Another thing Antychowicz *et al.* tells us is that this virus may be mutating and adapting to the colder waters found in Poland. The fact that they were able to re-establish the active disease in fish at 11 to 12°C (51.8 to 53.6°F), is disturbing to say the least. The virus we have been used to seeing goes “dormant” in fish and invitro at temps below 13°C (55.4°F).

Adkison *et al.*, showed that survivors of natural outbreaks and artificially induced disease almost all develop measurable anti-KHV antibodies. They speculated that fish with high antibody levels at one year post infection, are likely carriers.

They also found that passing antibodies from survivors to naive fish conferred only a slight and temporary improvement in immunity to a KHV challenge. They concluded from this that other immune mechanisms (e.g., cellular involvement) were likely at work in the survivors.



KHV - what's new?

Cont'd.

Dishon *et al.* reported another disturbing phenomenon when KHV-infected cells grown *in vitro* at "permissive temperatures" (18 to 28°C or 64.4 to 82.4°F) were raised to 30°C (86°F), the virus stopped reproducing. But when those cells were later brought back down to the permissive temperatures, the virus again started to replicate. They speculate this may also happen *in vivo* (literally "in life" meaning, in this case, "in a live fish") allowing the virus to persist at high temps but again start to replicate when the temperature is reduced. The potential "watch-outs" with this speculation is that, 1) there is no functioning immune system (one which might clear or significantly inhibit the virus in a live fish. See the findings of Adkison, *et al.* in the paragraph just above this one) in the lab jars and 2) temperature ranges for optimum virus growth in cell cultures tend to be 2-3°C (1.8 to 2.7°F) wider than those in fish (Gilad *et al.*, 2003). All this said, it's yet another finding that makes us think this bug may have numerous mechanisms to survive and later come back to haunt us



Spike Cover from Mission Viejo in California has been a Koi Keeper since 1985 but is probably more famous for being the AKCA's KHV Project's Directors. But Spike's involvement goes way back before that to 1999 as head of the AKCA's R&D programme before instigating the KHA (Koi Health Advisor) programme in 2000. Spike is a member of 3 Koi Clubs.

Dates for your 2007 Diary.....

- Oregon Koi & Watergarden Society Koi Show. **9th & 10th June** at Roseburg, Oregon, USA.
- The SAKKS National hosted by the KwaZulu Natal Chapter, **21st & 22nd July** at the Gateway Theatre of Shopping, Umhlanga Rocks near Durban, South Africa.
- The 15th NVN Koi Show (The European National) **17th to 19th August** at Kasteltuyn, Arcen near Venlo, The Netherlands.
- The 21st South East BKKS Open Show, **26th & 27th August** at Parkwood Hall School, Beachenlea Lane, Swanley, Kent, UK.

Working for an International Koi Community



About the South East Section.

The South East Section was founded in 1981 by a break away group from the London Section. It obtained Section status from the BKKS in 1982 and serves the counties of Kent, East Sussex, Surrey and Berkshire and the southern boroughs of London.

It's neighbouring Sections are the South Kent to the south, Essex to the North, Worthing to the west and the MSB (Middlesex & Surrey Borders) to the north-west.

The South East has a pretty stable membership generally numbering about 85 families.

Almost since it's founding the SouthEast has participated in information exchange with overseas Koi clubs and continues to do so today.

Our 'Open' show is both an attraction to the UK Koi scene as well as Koi keepers

Every year the show attracts an increasing number of overseas visitors and through them a number of useful connections have been made which enhances our appreciation and understanding of the hobby.



The show is always held on the August Public Holiday which generally falls on the last weekend of that month. Details can always be found on our web-site -

www.koi-clubs.com/SouthEast

The South East meets on every 4th Sunday of the month with the exception of December. Our meetings start at 2pm and we endeavour to have a speaker for 2 out of every 3 meetings. Those speakers generally cover Koi related subjects but occasionally we have one that diversifies a little e.g. Bonsai.

Our current membership fees are £15 per family and details as well as a schedule of speakers can be found on our web-site.

South East contacts in regard to this E-Magazine are :-

Bernie Woollands - bernie@koipin.com

And

Brian Edwards - brianedw@hotmail.com