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 :-

Oregon Koi & Watergarden Society.

The Nishikigoi Vereniging Nederland.

The South African Koi Keepers Society.

Partners in goodwill.

Issue 7
April 2007

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:

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.**
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Planning a vacation? See pages 6 & 12!

KHV Vaccine Development World Wide.

A status report by the Project KHV team. November 2006.

Seven groups (world wide) are reported to be working on KHV vaccines: Hebrew-University-Hadassah Medical School in Israel, Henderson Morley of Britton, North Carolina State University-College of Veterinary Medicine, University of Georgia, the Mie University and the Tokyo University of Marine Science and Technology in Japan, and Novartis in Canada.

The techniques being pursued include killed virus, attenuated live virus and DNA, and delivery methods range from oral preparations to immersion and injection. Hopefully, some of these projects will be successful and we will have several usable vaccines in the not too distant future. Even one would be nice.

The problems that face the vaccine developers are many. The two biggies are technical and regulatory. The challenge of developing and producing an effective vaccine is only the beginning. Once developed, there are government approvals to be reckoned with and these can be every bit as challenging as the development. Typically, government regulations have two important aspects: safety and effectiveness.

A killed virus vaccine is typically the least expensive and quickest to develop. And with regard to safety, a killed vaccine must prove that the virus is, in fact, killed/inactivated and therefore not capable of infecting fish as well as demonstrate the vaccine and/or its adjuvant (stuff that enhances the desired reaction to the vaccine) does not precipitate an unfavorable immune response. Its drawbacks are that killed virus vaccines don't usually produce as strong an immune response nor do they provide protection for as long as modified live virus vaccines and they are usually relatively expensive to produce.

A modified live virus is generally the next least expensive to develop and typically takes the next longest time to develop. It is, however, frequently the most effective in producing a strong, long lasting effect. The rub with modified live virus vaccines comes in proving they are safe, i.e., proving that the modified virus will not revert to the pathogenic wild type. Proving safety is reported to be a real bear on this type! Additionally, keeping the vaccine "alive" until it's administered adds another layer of complexity and expense to a final product.

DNA vaccines are generally considered to be the vaccines of the future. A portion of the viral DNA (gene) is incorporated into plasmids and introduced into the host, in this case our koi or food carp. Once in the host the viral DNA is incorporated into the host genome. The theory is the host (carp) then manufactures the antigenic proteins of the viral coat resulting in a protective antibody response to the virus. Since only the viral gene(s) are injected rather than the whole virus, there is safety regarding potential spread of disease. Unfortunately, not all DNA vaccines work to protect the host from viral disease.

There is an ongoing debate regarding the safety of DNA vaccines. Major concerns with regards to safety are the integration of the viral DNA from the plasmid to the host genome. These might include immunopathological effects (messing up the immune system), the formation of anti-DNA antibodies resulting in autoimmune diseases and the use of molecular adjuvants. In regards to food animals there are safety concerns regarding potential transformation of environmental microflora by complete or fragmented plasmids. Debate and controversy regarding regulation and licensing of DNA based immunization continues.

However, once developed it is typically the least expensive to produce. Most DNA vaccines do not use the entire genome sequence, so they are also likely the safest. That said, the regulatory process is essentially uncharted waters at this point as there are currently precious few DNA vaccines and that makes this part of the equation a large unknown.

Information reported about the specific groups working on KHV vaccine development is as follows:

Israel:

Kovax has been testing a modified live vaccine (developed by Perelberg, Kotler and others at the Hebrew-University-Hadassah Medical School) for two years and now has it approved for use within Israel. They report having vaccinated about 7 million carp within Israel in the year 2005 with very acceptable protection rates for both immersion and injection vaccinations. There are also reports that they are trying to obtain approval to sell the vaccine outside Israel. We suspect the Israeli effort is ahead of the others contenders.

United Kingdom:

In October of this year Henderson Morley PLC, a UK pharmaceutical company, announced it has been working on a vaccine against Koi Carp Herpes virus for the past 10 months and is now ready to start field trials of a candidate vaccine in a collaboration with Hagerman Aquaculture Research Institute in Idaho under the supervision of the Institute Director, Professor Ron Hardy. The report did not mention the type of vaccine or the method of delivery.

United States:

A University of North Carolina State University, College of Veterinary Medicine team lead by Drs. Levine and Shivappa report they have two candidate DNA vaccines ready for initial efficacy testing. In 2005 Project KHV agreed to fund this vaccine research. After sending a first payment they received money from a federal grant that also covered their work on KHV vaccine. They returned the money. So the work goes on and the money is back in the fund, a good/good result.

In 2004 a funding effort by NAWGS and Dr. Erik Johnson reportedly raised over $50,000 for Dr. Branson Ritchie's KHV vaccine efforts at the University of GA. We have no information on what the status of that work is. We do know that a year or so ago the group inadvertently developed a strain of KHV that would not reliably infect and kill fish, i.e., an attenuated virus.

KHV Vaccine Development World Wide

Japan:

In May of 2005 a press release reported that Tetsuro Yoshimura and Teruo Miyazaki at Mie University in Japan had developed an oral vaccine for KHV. The team gave koi feed incorporating a KHV liposome vaccine. The oral administration of vaccine resulted in antibodies 5 to 25 times greater than the usual levels. Compared with conventional methods of injecting vaccines the newly developed method requires less time and work. The research team plans to mass-produce the oral vaccine and conduct a large-scale experiment to obtain authorization from the Ministry of Agriculture, Forestry and Fisheries and other related ministries.

We have no specific information on the vaccine development reportedly underway at the Tokyo University of Marine Science and Technology and associated with Dr. T. Aoki. It was this group that was the first to completely sequenced the KHV genome.

Canada:

In a March 2006 press release the government of Canada announced that:
Novartis is developing an immunization strategy for the prevention of koi herpes virus. While preventing KHV in koi carp is a priority for hobbyists and sellers to protect the breeding, export, wholesale and retail markets, the control of the disease will reduce the risk of infection in the food carp industry which is of great importance in developing nations. This project, with total estimated costs of $2.5 million, will receive up to $1.8 million from the Atlantic Innovation Fund over a five-year period.

Additionally, Novartis has acquired rights to a patent covering the use of DNA vaccines in fish and also to another patent covering a unique delivery methodology.

Project KHV sees all the work in KHV vaccines as extremely encouraging and believes the "push" in the vaccine area is logical for two major reasons: a) it is almost undoubtedly the best hope for effective control and possible eradication of the disease and b) it is the area most likely to produce good profits for any group that develops a successful vaccine.

Therefore, we at Project KHV have concluded that while we will certainly continue tracking the progress of the various vaccine developments and will try to be helpful when and where we can, we will now concentrate our efforts elsewhere. We will pursue projects in areas that are also very important to the prevention and control of the disease but which are not nearly so likely to produce the return on investment that vaccines promise. These other areas include:

Education - prevention and control
Epidemiology (studying how the disease spreads)
Etiology (or aetiology in the U.K. <grin>) – studying how the virus causes the disease
Testing – better, safer, easier, cheaper and less invasive

We see progress in these areas as critical to our stated goals of near-term prevention and control and the longer-term eradication of the disease.

Toward this end we have funded a Phase 1 project that focuses on the education of koi dealers and hobbyists. It intends to prepare and deliver educational materials on prevention and control of the disease. This will be done in several ways (see: http://www.akcaprojectkhv.org/updatejune06.htm) :

1. Regional presentations
2. Presentations at technical and trade meetings
3. Web-based information
4. Free printed and electronic information

The Phase 1 grant group is scheduled to start its public education efforts in March of 2007. Watch the Project KHV web site for a schedule. See: http://www.akcaprojectkhv.org/ .

Recently we released an updated fact sheet on KHV that was primarily the result of a literature survey and provides what is currently known, what is unknown and a brief but current best practices for preventing the disease. See: http://www.akcaprojectkhv.org/KHVfactsheet-final.pdf

Additionally, we are soliciting and otherwise seeking projects that enhance our educational efforts, e.g., a Best Health Practices Certification program for koi retailers (see: http://www.akcaprojectkhv.org/RFP-BHPC-KoiRetailers.pdf). We are also seeking proposals in the other areas, e.g., the study of where the virus persists when it's not causing disease (latency and/or environmental persistence).

It's not easy to find good, targeted programs to support. To date we have funded two requests but have turned down several others. We have our eyes on the goals and are working hard to make sure we get a reasonable bang for the buck. We are making progress but it's certainly not time to let up. We need to build our fund so when we find projects that meet our criteria we'll have the money to pursue them.

You know the drill. If you leave it up to someone else, it won't get done. So please send us a check today. We will thank you in advance and we'll keep working hard to make it happen and to keep you updated.

Make checks payable to
AKCA Project KHV.
Send contributions to:
AKCA Project KHV
P.O. Box 4045
Oakhurst, CA 93644

This article appeared in the January edition of the Tall Fish Story - the Newsletter of the Oregon Koi & Water Garden Society.

Selecting a young Tancho

By Bob Winkler, AKCA Certified Judge.

The author would like to acknowledge the input of Kate McGill, BKKS

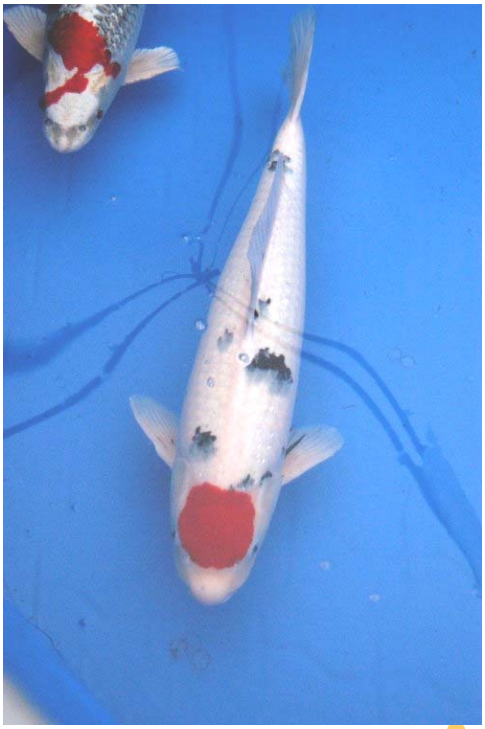
A "Tancho" is a koi with a distinctive, usually round and red (hi), marking on the head that does not appear anywhere else on the body. Originally the name was "Hinomaru", a crimson disk on white ground, representative of the Japanese national flag. The word "tancho" derives from the Japanese crane, a white bird with a round red crest. The roundish head marking which appears in addition to any other similar colored markings on the body is known as Maruten, as opposed to Tancho. Any koi variety with more than one color is capable of producing a tancho: for example Tancho Goshiki, a basic red and white koi with shades of blue and black as an overlaying vignette: or Tancho Ogon, a metallic white, grey, cream or yellow koi with a metallic red marking only on the head. However, tancho koi are more usually associated with Kohaku, a white koi with red patterns, with Taisho Sanke, a "white based" koi with red and black, and with Showa Sanshoku, a "black based" koi with red and white, arranged differently from Taisho Sanke. It is just these three (Gosanke) varieties that provide the show class Tancho. Other koi having a tancho pattern are classified with their basic variety, although that may change in the next few years in the U.S.

The tancho marking, as a key feature of this variety, was originally desired to be large, round solidly colored, and to have clean sharp edges. The (ideally) round hi should cover as much of the head as possible, but without incursion over eyes or shoulders; hence a koi with a broad forehead would be more likely to develop the classic tancho. While this is preferred, other shapes and sizes of tancho have become acceptable. But they are not as highly prized by most collectors, and the perfect round tancho marking is hard to find, especially in the larger sizes. However, there is much more to a good tancho than just a well defined, round red marking on the head. The koi must have the requisite criteria for high quality. Excellent conformation, clear bright, lustrous skin with well balanced, solid, clear edged body components (when any are present, such as in Tancho Sanke or Tancho Showa), and pleasing, alert deportment.

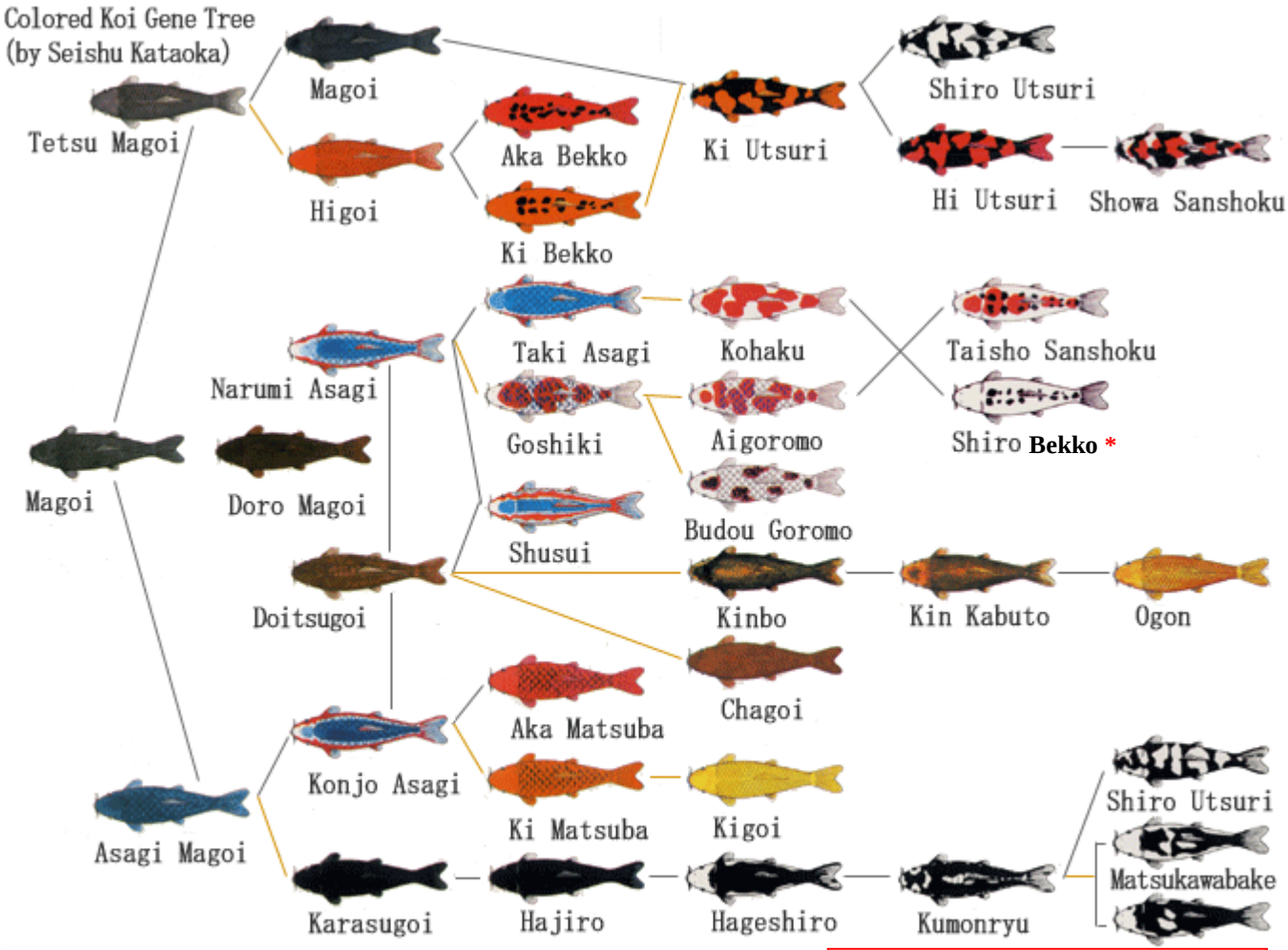
The Tancho Kohaku is perhaps the epitome of the tancho ideal, a plain white background with the simplest of overlays. When there is such a plain base, perfect symmetry of both body shape and fins are an absolute requirement. Such a large expanse of white skin is highly demanding of a smooth, lustrous, unblemished, pure white finish. Scaling must also be neat, as any unevenness of the scale lines is very obvious on a koi where the body is a single color. Probably the most common problem seen on this type of koi at shows is a (usually) stress related flushing of the white skin, which considerably damages the impression. Nevertheless, a Tancho Kohaku that merits the word "excellent" in truly a memorably koi.

When selecting a young Tancho, the larger the round hi marking, the more stable the tancho is thought to be as it ages. Some also think that buying a tancho at least two years in age helps make sure it is stable. A tancho marking has often disappeared as the koi ages from age one to two, much to the chagrin of many a koi keeper. The tancho of a youngster rarely has sharp definition, but if it is big when the koi is small, it will often achieve the desired definition in time. The hi of the young tancho must be thick and even, and should preferably not have achieved the much desired crimson red of an adult Tancho. The edging and uniformity of the color often indicates the strength of the marking. A definite fault out of which the koi will not grow is the presence of yellow or brown stains surrounding the hi marking. But one must also again remember not to base the decision only on the quality of the tancho marking. The overall quality of the koi must be judged, and specifically the quality of the ground on which the tancho lies. The ground must be pure and of such quality as to promote the etching of the hi marking. In Tancho Sanke and Tancho Showa, the ideal pattern of Shiro Bekko and Shiro Utsuri must be sought and the sumi must be thick, ebony-like and perfectly defined. For Tancho Showa, motoguro in the pectoral fins is an absolute prerequisite and for the Tancho Sanke, the tejima striping of the pectoral fins is desirable.

Tancho koi are a group demonstrating an interesting pattern variation that is popular with many hobbyists. The impression they give can be quite variable, often light hearted, and always appealing. They are thought to bring "good luck" in a pond, and make an interesting addition to any collection of koi.



Genealogy Chart - provided in response to popular request.



The brown lines indicate rare appearances or a mutation

* = amended in line with "Live Jewels"

Observations from the Genealogy Chart.

Thanks go to a forgotten poster on the Koi-Bito forum for supplying the graphic.

I would like to start by reminding readers of the article by James (Jim) Reilly that appeared in **Hotspot #3** entitled "**History of Carp & Nishikigoi**" that explains how carp arrived in Japan and the vast array of genetic material that went into the foundation of the Magoi. From that humble beginning, the first three hereditary branches of Nishikigoi arose; but only two, the Asagi-Magoi and Tetsu-Magoi lines have produced any Nishikigoi of significance. The other line, the Doro-Magoi or Muddy Carp seems to have faded into history. Research has failed to turn up any notable varieties emanating from this line.

Of the two remaining lines the Asagi-Magoi line is the most productive, not only in the number of varieties produced but in the number of qualities deemed essential for modern Go-Sanke. From this original "blue-line" came the Shiroji, Beni and lustrous Sumi. Jim often refers to the "White spreading gene" of Asagi as one of the fundamental building blocks of good Go-Sanke. However, we mustn't forget the advent of the Goshiki where the Asagi Beni appeared above the lateral line paving the way for the dorsal patterns so important to Kohaku and Sanke.
Ironically, the early preoccupation with the Tetsu-Magoi line was for its "red-line" which culminated in the production of the Higoi. It was only later that its inherent Sumi trait gave rise to the pattern phenomenon that produced the Shiro Utsuri & Showa.
Modern Nishikigoi breeding has involved cross breeding varieties from the different lines to swap some of the more desirable features to improve colour and patterns. .

Bernie Woollands.

see page 9 for another perspective

英國東南地區錦鯉俱樂部

"The Koi kichi vacation planner"

Europe

April:
21st & 22nd

The 14th KLAN Interkoi aka the German Koi Show, at the A2 Forum, Rheda– Wiedenbrueck. Germany

May:
19th & 20th
Belgian Indoor Koi Show, by Koi Secrets.
At the Nekkerhallen, Mechelen Belgium

June:
8th to 10th
Koi2000 Show, at Safari Beekse Bergen Hilvarenbeek, the Netherlands.

16th & 17th
Koi@Home Show, at the Japanese Gardens, Hasselt, Belgium.

August:
17 to 19th
NVN European National
at Kasteltuin, Arcen nr Venlo,
the Netherlands.

Africa

March
24th & 25th
Southern Cape SAKKS Koi Show
at George. Rep of South Africa

April:
7th & 8th
Free State SAKKS Koi Show
at Bloemfontein, Rep of South Africa.

May:
19th & 20th
Gauteng SAKKS Koi Show
at Johannesburg, Rep of South Africa.

26th & 27th
Western Cape SAKKS Koi Show
at Capetown, Rep of South Africa.

Countries to visit.

You can waste an inordinate amount of time at travel agents or consulting an atlas. Keep things simple -

"If they don't have a show, Don't Go!" .

AFRICA CONTINUED…..

July:
21st & 22nd
SAKKS NATIONAL Koi Show at
Umhlanga Rocks nr Durban, Rep of South Africa

Australia.

May:
20th.
KSA Show at Fairfield City Showground,
Smithfield rd, Prairiwood NSW, Australia

27th
Western Australian Koi Society show,
Perth, WA, Australia

The Australian Koi Association (AKA) held theirs in March. There's always next year!

U.S.A.

April:
28th & 29th
The Sakura Young Koi Showa
at Culpertino, California, USA

May:
4th to 6th
Southern Koi Expo, Winston, Salem, Nth Carolinia USA

May: continued
5th & 6th
Oklahoma Koi Society Show
Oklahoma City, USA.

June:
9 & 10th
Oregon Koi & Watergarden Society Show
at Roseburg, Oregon, USA.

20th to 24th
26th AKCA Seminar
at Phoenix, Arizona, USA

23rd &24th
Pioneer Valley Water Garden & Koi Club

30th to 1st July
Northern Midwest ZNA (USA) Koi Show, at
Indiana State Fairground, Indianapolis.

July:
28th & 29th
Northwest Koi & Goldfish Show
at Portland Oregon. USA

September:
14th to 16th
Atlanta Koi Clubs Koi Show
at Tucker, Georgia, USA

22 & 23rd
Sacremento Combined Koi Show
Placer County Fairgrounds
Roseville California. USA

28 & 29th
Koi America at Carroll County Shirley Arena,
Westminster, Maryland. USA.

October:
13th & 14th
Texas Koi & Goldfish Society Koi Show,
at San Antonio, Texas, USA

U.K. Shows are listed on page 12.

Skin quality - the journey.

Bernie Woollands

The day I picked up my first Koi book I learned that skin quality was important. However, no matter how many books and magazines I read there were never any accurate descriptions of what good skin quality actually looked like. There were diagrams showing good body shape, desired patterns and colour faults, but nothing that remotely depicted good skin. You should also bear in mind that the only magazine available at that time was the BKKS' own mag – in black and white.

If I am honest this wasn't something that bothered me in the very early days. All the Koi I saw looked much the same where the skin was concerned. With nothing to make comparisons against I was happy to accept that the norm was the standard and therefore the standard must be acceptable.

All this changed after I joined the South East Section and got involved in our Koi Shows. Shortly after joining I was persuaded to show my Koi and after realising that a yearly outing in a show vat for a weekend did them no harm I got more involved. That involvement eventually led to benching and it was at one of the shows in the early 90's that I had a revelation. Whilst assisting Keith Phipps at benching, a young Kohaku was placed in the benching bowl. The owners were Reg and Jill Coleman who were from Essex but were regular exhibitors at our show and Jill specialised in young Koi. She was a regular winner of Baby Champion awards every year at either our show, Essex, Lower Thames or the National so you could say she knew how to pick 'em.

This Koi was something special but it needed Keith to identify why. He remarked "You don't see skin like this too often", and at that point I had an example to appreciate and compare others against. The white skin was milky white and had a **depth** to it. I seemed to be able to **see right into it** and it appeared to slide under the Beni and lift it and overlaying all of that was what appeared to be slight sheen.

Much later on people, certainly Waddy, attempted to describe this phenomenon with terms like "Silk versus Cotton" and references to layers within the skin became commonplace. Comparisons only work if you are familiar with the fabrics and although it adequately **described what** I was seeing, it certainly didn't **explain how** one Koi of the same variety was so different from another.

When ever I am faced with a dilemma I resort to research. Clearly this was a biological phenomena and therefore an explanation lurked somewhere in the science. Text books explained fish colours in terms of 'guanine' and chromatophores; shine and colour. Biological text books about fish dealt with natural specimens not cultivated ones. Colour was all about camouflage and all I obtained from that research was that these colour producing cells resided in one layer of the skin, and within the skin there were multiple layers.

It took me a while to appreciate that where cultivated species were concerned what was unnatural (man influenced) could become the norm. Carp weren't originally red, white and blue but they were now. If the original camouflage colours could be reversed then why couldn't colour cells be occurring in more than one layer of the skin? It may sound like genetic engineering and a feat beyond the skills of peasant rice farmers in a remote Japanese mountain range, but then surely the same could be said of other farmers that created several breeds of cow from the same remote ancestor or created the Chihuahua and Great Dane from a domesticated wolf. People whose life depends on something nurture it and observe it closely. If a carp farmer could create an Asagi from a Magoi via careful observation and selective breeding, then it's no great stretch of the imagination to assume a Koi farmer could enhance the skin of a Kohaku.

I don't want to give the impression that I was obsessed with these notions and was spending all my time undertaking research. I had plenty of other things to be getting on with so usually I dropped the subject as soon as I hit a brick wall, and only picked it up again when another Koi caught my eye, or a snippet of information via a magazine, book or conversation resuscitated my interest. This was generally a seasonal occurrence triggered during the UK Koi Show season Eventually information regarding the work of Toshio Sakai began to be made available and scant though it was in the early days it was sufficient to convince me that I was right to consider that the superior skin on some Koi wasn't the result of accident but design. However, regardless of the increased frequency in the information flow regarding multi layered skin (the coats of paint theory) I still had one problem. This information implied that the skin layers ran one on top of the other and these layers ran underneath the scales, which didn't concur with my observation of being able to see right into it, good skin to my eyes had a depth. In and around this time I had four visits to Japan in a reasonable quick sequence (three years) and there I saw more and more fish with a greater occurrence of skin quality as one would expect.

The next milestone came when I joined the BKKS Judges training programme. Here, it was imperative that I should recognise and grade skin quality as part of the judging programme, that wasn't a problem. I could even describe it after a fashion, but the one thing that still eluded me was the ability to explain it. To my mind the real scientific explanation of Nishikigoi skin hadn't been written. If it was out there it certainly wasn't in English.

And then one day, revelation number 2 occurred. A thread on the NI (Nishikigoi International) web-forum got to discussing skin quality and with it came the explanation I'd been looking for during all those years. It came as no surprise to me that it's author was James P Reilly, and this was it – give or take a few spelling changes because like all Yanks he has a few problems with the Queen's English!

Quote: ** A cuticle layer (thin layer of mucous and cellular debris- key to clarity)*
**An epidermis layer (epidermal layer- mostly Malpighian cells- holds in the inside in and the outside out! These are living cells and capable of reproducing. This layer will also have colour cells in very high quality fish. It is also the thickest layer in Doitsu fish.*
**A dermis layer- actually two layers- upper dermis and lower or sub-dermis. This is the 'colour zone' for the chromatophores and also the area that supports the scales. This area is greatly developed in high class Nishikigoi.*
** A hypodermis- this is the connecting layer which attaches all the 'above' to all the 'below'. It is the area of blood flow and this base structure will hold some cells that improve the lustre effect.*
Finally we have muscle - muscle is red or white and tends not to contribute to the colour effect. But the fascia on top of the muscle does- and depending what colour or iridescence, this tough fibrous layer is, the effect of black or white skin will be intensified.

Now we must imagine how all this is 'laid out' on the koi's body.

The five layers are not simply flat layers running over the fish. This would be impossible as the fish has scales which

Atarashi Sumi - the Why? Factor.

Alan Coogan, BKKS Judge, explains the rationale behind the development of **Atarashi Sumi.**

One of that the driving forces behind the development of Atarashi Sumi, has been the unpredictable nature of the original Sanke Sumi with its ability to disappear and reappear often in different places. In the past this has led to breeders' making costly errors in their pricing or dissatisfied customers expecting Sumi to develop only to find it seems to evaporate. The beauty of the new Sumi is that it seems to develop very quickly, is stable and reacts in much the same way as the hiban. Atarashi seems to erupt from within, spilling out and expanding over the surface at the same rate as the Koi grows, so the Koi seems to look just the same in proportion at two as it will at six leaving much less room for error on the breeders' part and a lot more satisfied customers.

To illustrate the point Alan supplied two photos of one of his Shintaro Sanke. The first (left) taken in 2005 and the other (above) taken in 2006. Clearly a case when less is not more!.

Skin Quality cont,d

emerge from the depths of the dermis and would 'break through' the other layers. No, the layers are continuous. So how is this all made possible? The layers flow as one both under and on to of the scales, wrapping the scales in the process. So that upper dermis, epidermis and cuticle flow in one larger layer over the scale and also exist below the scale. This is what gives the depth of colour and the three dimensional effect of really good koi skin.

Unquote:

This was it! In one short post all my questions and concerns had been addressed, the layers of the skin, their relationship with the scales, colour cells in more than the original layer, and the three dimensional effect.

I was now fully equipped **"Identify, describe and explain"** had been the mantra of my old boss in the Training Department and now that elusive explanation was finally in my grasp.

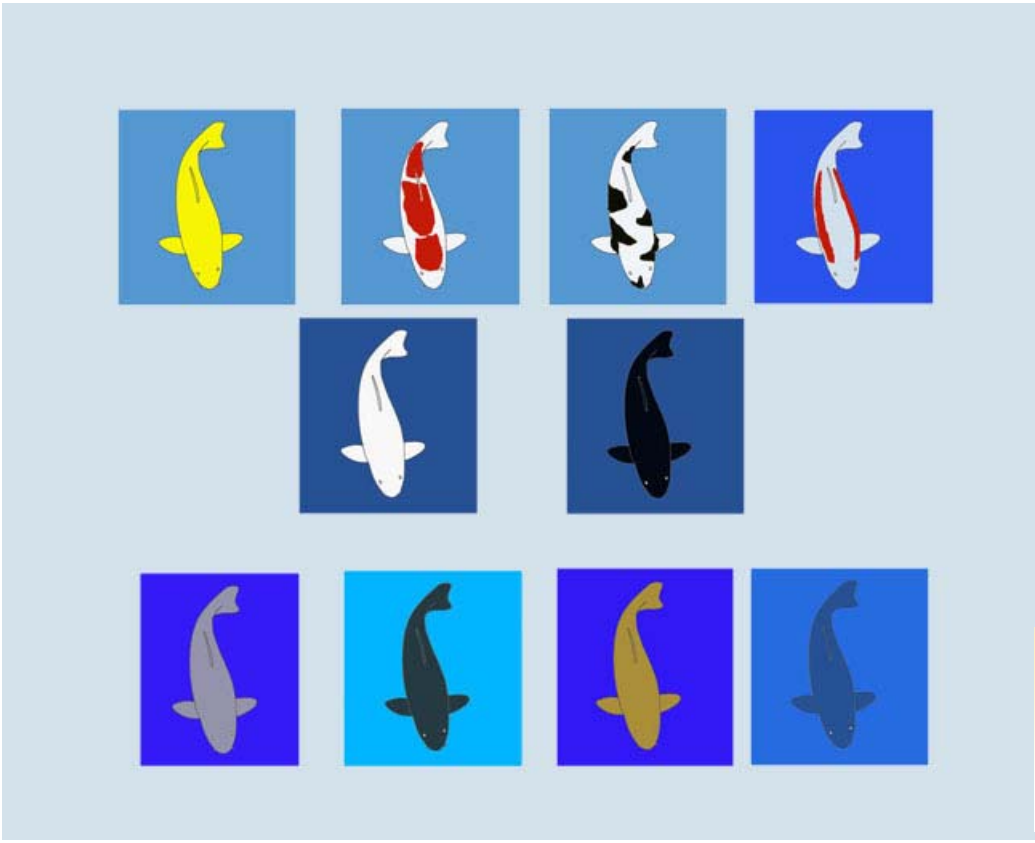
Some time later, more than likely the following winter, I tried to unravel Jim's explanation and create one of my own to share with the section members. A project I picked up and dropped for a couple of years dictated by the demands of the Show season and my inability to expand or enhance Jim's original text. That was until December 2006, when I decided to adopt a new approach and include Jim's words in their original form without any embellishments from me other than relating my *journey of discovery*, and that too is another Reillyism – Jim is a keen advocate of the ZNA with a far deeper understanding of its tenets than the average westerner. One of his oft-quoted adages is "Knowledge of Nishikigoi is a journey" – you have just read about a part of mine.

These days we are more fortunate in that good quality Koi are regularly seen on the British show-circuit as well as being available in more dealers than they were in the late 70's early 80's. We also have the benefit of colour magazines, the internet and some well produced books by hobbyists and dealers with a long history in the business who have been prepared to share their journey into Nishikigoi.

Bernie Woollands.

Nishikigoi evolution made easy.

James P Reilly



Here is a picture chart entitled " all you ever needed to know about nishikigoi evolution". Please do not confuse this with and actual evolution of the breeds! This is a simple illustration of the KEY genetic traits of Nishikigoi as a race - from wild stock to skin mutation to pattern type.

So read this from the bottom pictures upward

Bottom row-wild magoi stock
Middle row- two color types
(black and white)
Top row - the four basic pattern that all koi share

(Self Coloured, Dorsal, Wrapping, & Doitsu inflenced)_

This is a reference plate from a Powerpoint presentation given by James P Reilly of ZNA America.

Notification of KHV - the solution? ? ?

At our February meeting we had the pleasure of welcoming back **Bernice Brewster, Bsc, FLS, MIFM, CBiol, MIBiol** to give a talk on fish health. Bernice has been associated with our club for at least 22 of our 25 years of existence and her talks are always well structured and complete with complimentary overhead slides. Bernice has the distinction of also being our most frequent speaker, and certainly the most popular, which we put down to her willingness to share her honest opinions as well as explain her rationale and any science that supports them. At this meeting however, we derailed her talk as many of our members wanted to hear her thoughts on KHV. One particular question regarding making the disease 'Notifiable' prompted her to explain that 'Notifiable status' has three options.

"The three options are:
1) A voluntary approach, whereby industry takes responsibility for control of the disease through improved bio-security, health attestation from suppliers. BUT this can only be applicable for an 18 month period because of statutory control under the implementation of the Aquatic Animal Health Directive to be applied from Autumn 2008
I presume that given the Notifiable status, anyone with confirmed KHV outbreak would be required to inform CEFAS.

2) Apply existing government measures to control the spread of serious fish disease. In other words the same procedure that is followed for SVC. Suspicion of KHV would invoke a 30 day Designated Area Order and if the disease is confirmed then the DAO will remain in place until such time as CEFAS is satisfied any fish movement is unlikely to spread the disease further. That's fine for SVC which tends to cause an infection and then 'disappear' but the problem with KHV is latency.
3) Industry/Government partnership model, CEFAS would investigate suspected outbreaks of KHV, identifying high risk areas but with industry taking precautionary procedures to avoid further dissemination of KHV. This would be regulated through the Environment Agency under the Salmon and Freshwater Fish Act (SAFFA).
The Ornamental Aquatic Trade Associations has been included in the consultation but the above options appear to me to be more relevant to the coarse fisheries, rather than the koi hobbyists" BB

In response to a question regarding infected suppliers destroying stock BB explained that it is unlikely to be enforced as as far as she is aware there are no moves to compensate those infected for doing so. While we all agree that 'Notification' is a step in the right direction, we are left wondering which step it might be, and what others will be required in the future

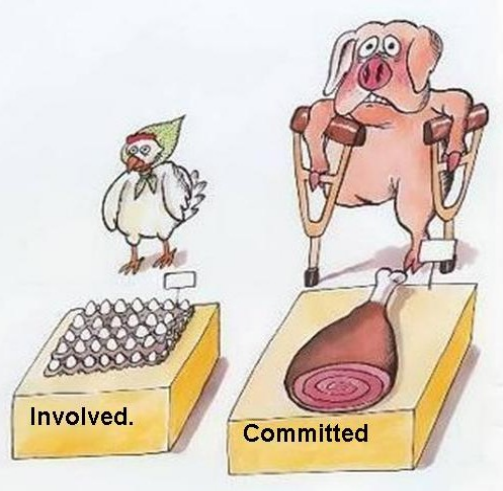
De NVN Jury Opleiding.

This article previously appeared in the International News section of the April's Edition of KOI CARP Magazine

Ask any Dutchman what the traditional English Breakfast is and they will reply -

"Bacon & Eggs". OK - In reality it might now be some faddy muesli or a whole grain cereal, but tradition would still state Bacon & Eggs.

To get those foodstuffs onto the table requires input from two distinct sources, a chicken and a pig. The chicken provides the egg and the pig provides the bacon, the two animals seemingly doing the same job i.e. providing. However, that task requires a different approach and attitude from those animals. The chicken turns up, drops an egg, and then goes back to clucking about somewhere in the farmyard. The pig on the other hand has to show a greater commitment, and that is the great difference, - the chicken is ***involved*** in the process of that there is no doubt, but the pig is ***committed.***



And 'commitment' is what it will take for an NVN member to become an NVN Judge. Commencing this year, the NVN's Judges Training Programme will be training candidates via purpose built seminars and carrying out practical training at Koi Shows throughout Europe. Originally planned for just 8 candidates in the first year it already been expanded to 10 to meet the demand, and there are still several people on the waiting list.

These candidates will begin their 4 tier, and therefore potentially a four year programme at the inaugural seminar in March.

The training programme based on the best of the American, British, Japanese and South African training programmes along with some indigenous Dutch ingenuity. Devised by training professionals and judges from throughout the Koi world it aims to produce NVN judges to an international standard.

Candidates are required to :-

- Speak fluent English.
- Attend all lectures and talks throughout the year
- Attend the Holland Koi Show in a working capacity. (Benching and trainee judging)
- Produce articles for the NVN's magazine during their training period and when qualified.
- Produce and present seminars for NVN members
- Be a trainee judge at least once a year at a European show.
- Judge in a trainee capacity at a Koi show outside of Europe before their last stage of NVN qualified judges (Grade A) programme.
- Assist in the training programme as instructors during the final years of the programme and when qualified
- And pay a yearly fee of 400Euros.

As we have already determined -

only the committed need apply!

Lost in translation

This photo of a Thai Koi Dealership was taken by **ZNA** Judge Alan Nementzik from the **Singapore ZNA** and sent in by Mike Harvey, a South African ZNA Judge from the **Kwa-ZuluNatal Chapter** of **SAKKS** to his sister club in the South Eastern corner of the UK.

Surely this must illustrate the global nature of this hobby and the international scope of **Hotspot** .

Alan went on to say "**The owner is a great guy - pity he does not speak English though and relied on the wrong interpretation - the poor guys all wear T-shirts sporting the same logo**"

Daruma Dolls

Daruma Dolls are another Japanese cultural item that occasionally find their way over here. Generally red in colour they are egg-like, legless papier-mâché dolls that look like the kind of thing found in Budgie cages. Daruma come in all sizes from massive 1 metre high beasts, to small desktop models and even tiny ones that can be attached to a key ring.

A Daruma doll is without arms and legs and when purchased has only blanks for eyes. Their purpose is to bring luck, specifically to grant a heartfelt wish or to bring success to a project. Folklore has it that you should only have one Daruma Doll on the go at any one time. The ritual is as follows.

Make your wish and then paint in the left eye. This symbolises your commitment to the task ahead. Keep the doll in a place where it can be easily seen to focus you mind on the wish or project whenever concentration is required. When either the wish comes true or the project concludes satisfactorily, paint in the right eye. Keep the doll as a token of how lucky and successful you are.

Like most of the Japanese trivia we have covered in Hotspot, Daruma are a thing of Japanese folklore and legend , and the Daruma has a long and gory history behind it.

Daruma are linked to the founder of Zen Buddhism a monk called Bodhidharma. He was renowned for practicing a form of mediation known as “Extreme Meditation”. Extreme is the word ! for legend has it that he sat in a particular posture for 9 years during which his arms and legs atrophied and fell off. Furthermore, to prevent himself from falling asleep he cut off his eyelids. Legend has it that those eyelids turned into the caffeine found in tea-plants and that’s why it can keep you away at night.

The Daruma Doll celebrates this feat and reminds Budhists of Bodhidharma’s dedication to the cause by not resting until it he had reached his goal, regardless of the personal cost.

When this story was first relayed to me by a Westerner that lived most of the year in Japan he added a further embellishment. He told me that Daruma Dolls came in both sexes and that underneath the male dolls you would find two circles symbolizing the testes. He explained that sometimes male dolls were preferable in some circumstances. He added that he preferred to always use them because if the wish never came true he could turn them upside down and kick them in the ******s.

This turned out to be a fabrication, but it had me fooled for a little while and its funny enough to share

Japanese Poetry

Ari hitotsu
musume zakari o
hadaka ni shi

蟻一つ娘ざかりを裸にし

A single ant gets
a good girl
out of her clothes!

Senryu

CLUB STUFF.

BONES

It has been said that the Membership of any organisation is made up of a collection of 4 bones. They are:_

WISH BONES

Those who spend their time hoping that someone else will do the work.

JAW BONES

Those who do all the talking and accomplish nothing.

KNUCKLE BONES

Those who knock everything down and fail to replace it

BACK BONES

Those who put there back into it and do most of the work.

Supplied by
Theresa Knapp South East Section

A short free video clip of the South East 2006 Grand Champion can be seen via the link on the front page of the South East Web-Site
www.koi-clubs.com/SouthEast

Belgian Indoor Koi Show, 19 &20th May www.koi-secets.com for info….

The Koi kichi vacation planner—continued.

U.K.

May:
27th & 28th
South Hants BKKS Open Show
at Waterlooville, Hampshire, UK

June:
2nd & 3rd
East Pennine BKKS Open Show
at Elsecar nr Barnsley, Yorkshire, UK

9th & 10th
Worthing BKKS Open Show
at Patching, North Worthing, UK

23rd & 24th
BKKS NATIONAL
at Newark, Lincolnshire, UK

July:
21st & 22nd
Essex BKKS Open Show
at Avely, Essex UK

28th & 29th
Potteries BKKS Koi Show
at Trentham Gardens, Stoke on Trent. UK

28th & 29th
Northern ZNA Koi Show
at Rotherham. UK

August:
5th
Mid Staffs BKKS Closed Show
at Cannock Staffordshire UK

11th & 12th
Scottish BKKS Koi Show
at Hamilton, Scotland, UK

11th & 12th
North East BKKS Open Show
at Sunderland. UK

26th & 27th
South East BKKS Open Show
at Swanley, Kent, UK

September:

22nd & 23rd
Birmingham & West Mids BKKS Show
at Stourbridge nr Kidderminster. UK

October:
12th to 14th
Festival of Fishkeeping incorporating
the 4 Section Koi Show
Hayling Island, UK

More information

Can be found via the News_Events page on :-

www.koi-clubs.com/SouthEast

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 from abroad.

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 :-

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And

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英國東南地區錦鯉俱樂部