



THE FINNY BONE

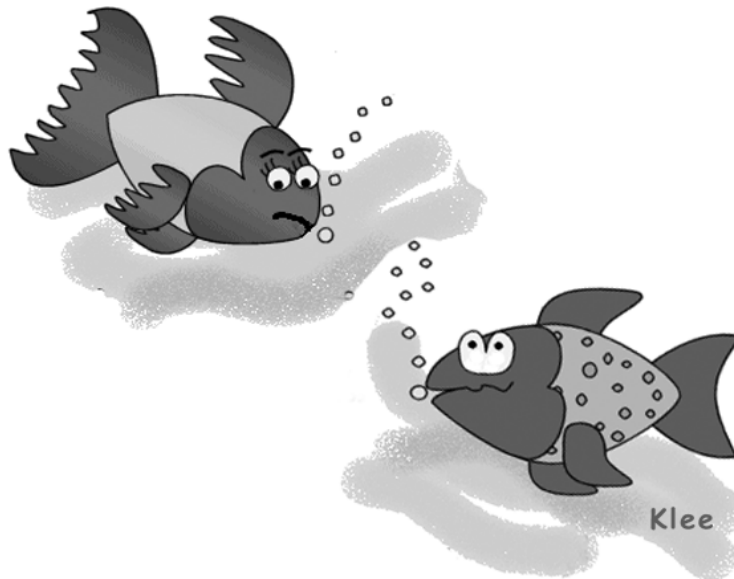
SECOND EDITION

By
Albert J. Klee

**Dedicated to all aquarium hobbyists
and anyone Interested in fishes.**

Minimum Requirements:

- (1) Must be able to read.**
- (2) Must be able to distinguish shapes in drawings.**
- (3) Must have a sense of humor (a really perverted sense is recommended).**



**“My psychiatrist diagnosed it as acute
Schizophrenia—those damned
Ichthyologists keep changing my name!”**

AJK Productions

FORWARD

There is a rare breed of individual who can hardly maintain an interest without an intense drive toward mastery of the subject at hand. One such individual is at the same time a warm and sharing human being with linguistic capability in a number of tongues useful in the scientific pursuit of his chosen laity, plus a tremendous storehouse of related technical and practical knowledge with a spring-trap mental key for withdrawing the knowledge for scriptic or oral presentation. Because of a facility for presenting ordinarily indigestible material in a completely palatable way, it was perhaps inevitable that Albert J. Klee would one day be willingly drafted into the professional service of his non-professional ichthyological and aquaristic peers.

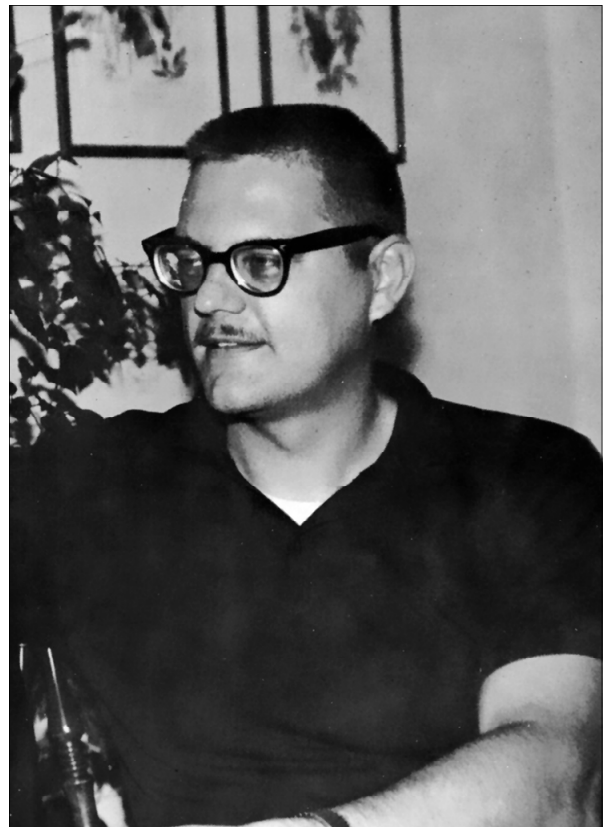
Al Klee's affinity with nature is evident in his written word and in his chosen epitaph, "Knowing that Nature never did betray the heart that loved her." He is Editor, Educator and Engineer, but most of all he is a naturalist who loves the nature equally as well as the knowledge of it.

He does not trace his aquaristic involvement back to the guppies and goldfish of childhood as many of us would, but instead to the year 1948 when he was putting in a 30 hour week of work at New York's 5th Avenue at 42nd Street Public Library as a page to subsidize his already fulltime work toward a Bachelor of Chemical Engineering degree from CCNY. This was eventually to be only one of five, three of which were Masters degrees.

As fate would have it, a copy of William T. Innes' classic *Exotic Aquarium Fishes* fell from a conveyor Al was loading, and up from an open page stared a fish so bizarre in appearance that it was hardly believable to him that such a creature could not only be a product of fresh water but could be kept in an aquarium. The fish was the plecostomus (*Hypostomus plecostomus*), a creature responsible for that same, half-believing sensation to more than one budding or non-budding aquarist, but the difference was the time.

The post-war hobby had only begun to lose its pinfeathers, and although Al was a couple of years from having his own plecostomus because of the temporary rarity of such fishes, he was compelled headlong into devouring not only the Innes masterwork, but what was possibly one of the most complete and comprehensive collections of multi-lingual aquarium and ichthyological material in the world. Unknowingly, this was all being filed mentally away for future reference, and he was himself not to realize until two years later when he had received his degree and moved to Cincinnati what a vast compilation of knowledge he had acquired.

Already deeply involved in fishkeeping, it was not long before a visit was made to what turned out to be one of Cincinnati's best aquarium shops, and to the amazement of everyone involved including perhaps Al himself, he was shortly not only identifying by their scientific names fishes which he had never seen before, but recalling from his mind the habits and aquarium history of the fish involved. Fishes were



Albert J. Klee in 1965 (age 37 years).

beginning to come in more regularly, many of which were unidentified, and for some time his mental filing cabinet in which was stored a conglomerate of foreign and domestic aquarium material dating back almost fifty years was kept busy pinning the proper tails on unknown donkeys.

Al Klee's capacity for education is more formally indicated in his list of degrees: Bachelor of Chemical Engineering, C.C.N.Y.; Master of Chemical Engineering with a minor in Biochemistry, N.Y.U.; Master of Business Administration, Xavier U.; Master of Science (Mathematics), Xavier U.; Ph.D. (Interdisciplinary, i.e., Systems Analysis, Mathematical Economics and Political Science), University of Cincinnati. In addition to these he also holds a diploma from the Universidad Complutense de Madrid. In his professional life he has consistently held positions of technical advisement and training with the largest companies and has worked with the Atomic Energy Commission and the U.S. Public Health Service. He is also an Adjunct Associate Professor of the Graduate School of Xavier University and an Adjunct Associate Professor of Environmental Engineering at the University of Cincinnati.

Even within the restrictions of the aquarium hobby and related fields, Al is founder of The Greater Cincinnati Aquarium Society, a founder of the American Killifish Association as well as its first Chairman of the Board of Trustees and its first Fellow. He has been Editor of the AKA Journal and Chairman of its Technical Publications Committee.

Certainly Albert J. Klee's great contribution to fishkeeping, if any could be singled out, is his unbelievable prolificacy of written material, technical and non-technical. He has shared his wealth of knowledge in German, Spanish, Danish, Swedish and English and his *A History of the Aquarium Hobby in America* is destined to become an important reference. An important factor is the greatness of the unfortunately demised *Aquarium Journal* for which he was an Associate Editor, Al has since been Founder and Editor of *Aquarium Illustrated* and is now Editor of *The Aquarium*, a magazine of continuous excellence since it was

founded in 1932 by the beloved William T. Innes. Mr. Innes' life's work could hardly be placed in better hands.

University teacher, explorer, discoverer, researcher, scientist, author, adventurer, husband and father, this is a man of many interconnected facets. There are perhaps few persons, certainly within our aquatic field, who more thoroughly research and analyze material before signing their names to it than Albert J. Klee. Truth and accuracy are of prime importance to him, and he is quick to see issues developing and to comment on them editorially. His literary resources, many of which are retained in his head, are of such that few aquatic inquiries cannot be answered no matter how obscure. His is the education of conviction and assurance, for he is one of the rare experts who find no difficulty in saying that he does not know if indeed this does occur. It seldom does, but if it should he can probably find the answer in short order.

He is a member of The American Statistical Association, The American Society of Ichthyologists and Herpetologists and The British Ichthyological Society.

Many to whom near perfection in their field comes easily lack patience and tolerance with those for whom the plodding is a bit more soggy. To be a "stickler for minutiae", to quote his own words in a personal letter of a few years back, Al has at the same time helped plenty of little old ladies across the street with their attempts at "literizing," and at least one medium-sized, not-too-old man.

This is a book of his humor. To properly list his credits would require at least one more, larger volume. Al has been accused of being a walking encyclopedia. Chances are, however, when you have finished reading this collection of some of the passages occurring within his writing and in which he can either make you smile in the middle of a technical article or hit you lines later from inside your head with a rubber sledge-hammer blow that puts a knot on it, you'll be closer to the essence of the man. This is where he really lives.

Braz Walker

INTRODUCTION TO THE SECOND EDITION

In 1969, Cleveland M. Smith (i.e., “Marty” Smith) put together a collection of my cartoons, short articles and quotes from longer ones that appeared over the years 1955 through 1965 in *The Aquarium Journal*, distilling from the articles what he thought represented the best of my humor. It was published in that year by The San Francisco Aquarium Society as a 66-page book. As I had no idea he was working on this project, its publication came as a complete surprise to me, just as Marty had planned it!

My daughter, who is a veterinarian by profession, recently asked me for a copy but as I had only one left (although copies do pop up now and then on the Web for sale), I decided to reproduce a copy for her since I hold the copyright for the material. I could have, of course, simply scanned my copy but I elected to re-do it from scratch. If I had known the amount of work involved I probably would have taken the easier course!

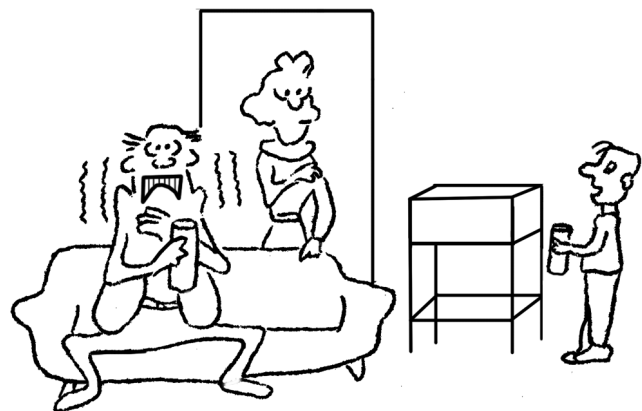
Over the years some of this material has been reprinted in club newsletters and elsewhere, sometimes being attributed (thank you!) and at times anonymously. On a number of occasions the material (most often the cartoons) have been attributed to or outright appropriated by others. Ah, well; such is the perversity of human nature. With my permission, some of the material has appeared in *Dopeia*, a publication subtitled a “literary supplement to Ichtherps, for poetasters and their ilk,” and purportedly published by the AMERICAN SOCIETY FOR FISH PREVARICATORS AND REPTILE FABRICATORS. In actuality it was published unofficially by a group of members of the AMERICAN SOCIETY OF ICHTHYOLOGISTS AND HERPETOLOGISTS, one of whose editors was my good friend, Dr. James W. Atz, whose own sense of humor is only exceeded by his knowledge of aquarium history.

Humor in writing or in cartoons can come in many different forms. However, most of my humorous writing involves either parody, satire, situational humor, under- and over-exaggeration and/or hyperbole, whimsy or wordplay. A parody is a good-

natured spoof created to poke fun at something or some one; satire is parody in which the folly is held up to scorn, derision, or ridicule; situational humor is humor that is based upon personal experiences; exaggerations are forms of writing in which a greater expression or lesser expression is used than what would be expected; whimsy expresses an odd or fanciful idea; wordplay examples include puns as well as obscure words and meanings.

As a student of languages, I am interested in wordplay and, in my own view, think that my best work is reflected in this genre. Since it is for me at least the hardest to do, I have written only a few articles of this type, but of all the material in this little book I am fondest of the piece entitled “A Short Histrionics of the Aquarium Hobby” in which one pun follows the other. Kudos also to Marty Smith for his pun in titling this publication.

I have always appreciated good parody and satire, one of my favorite authors being Ring W. Lardner. His “Alibi Ike” story still keeps me in stitches, although I have read and re-read it countless times. I got my start in humorous aquarium writing and cartoons in the 1950s when I was Editor of THE GREATER CINCINNATI AQUARIUM SOCIETY’S *Newsletter*. The three cartoons in this preface appeared in that modest (a mimeographed) publication and are the very first cartoons I ever drew.

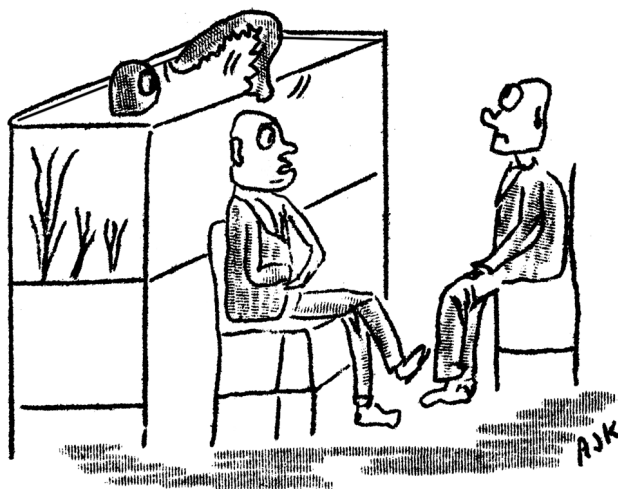


“Hey Ma, this is beer! Where’s my glass of brine shrimp?”

After studying the history of the aquarium hobby for many years and in much detail (the bibliography in the Third Edition of my *The Toy Fish* contains 319 entries that range from 473 B.C. to 2005 A.D., and this number does not include most of the periodical entries), I have come to the realization that - for better or worse - I was its first cartoonist, not that I was the first to draw an aquarium cartoon but the first to draw them as a recognizable genre within the hobby.

Which leads me to bemoan the fact that very little humor has appeared in aquarium writing since the first edition of *The Finny Bone* was published, although aquarium cartooning fortunately is alive and well. Parody, satire and situational humor are glaringly missing both from our commercial aquarium publications and club newsletters. Admittedly we get the facts but, more often than I would like, they are as dry as a bone, excluding unfortunately, the funny bone.

Of course I may be entirely wrong about this and it may be that there is no justifiable place for humor in aquarium writing. Although Braz Walker makes a brief comment on my humor in the last paragraph of his introduction in this book, the rest has been pretty much silence, although in Lovel Tippit's review of my book, *The Guppy, 1859-1967*," he writes: "Yet the booklet has a lighter side also. The other morning



"Yes, I keep only guppies, why?"

I was greeted by the sound of my wife Joy giggling in the kitchen as she looked over some of the cartoons that Dr. Klee has included in the booklet." Lovel continues: "Although the first few pages of this booklet are not what I would coin 'easy reading,' purely because of the depth of the material being discussed, the information is the most comprehensive work on the early history of the Guppy that I have ever come across. Once the foundation is laid though, the booklet becomes very entertaining, as well as enlightening."

I think this makes my point that humor does have value. It was not only my own writing that at times was not "easy reading," much of today's aquarium writing is fairly erudite and would benefit by a smile or two. After all, the bible tells us, "A merry heart doeth good like a medicine."

Although the humor in this book is directed to aquarists, much of it can be understood and appreciated by non-aquarists. On the other hand, certain of the material requires special knowledge to apprehend fully. For one thing, some of the material is dated and thus about as comprehensible as the name Edna May Oliver is to a teenager. The cartoon on page 33, for example, refers to Instant Fish kits, a folly that passed out of the aquarium hobby fifty years ago.

For another, mainstream aquarists are not aware of everything that goes on in the hobby. The "An Ode to Narcissus" on page 46, for example, refers to an ichthyological controversy that occurred in 1956 when two ichthyologists published a description of a new species and another ichthyologist published a description of the same fish. Thus, two different names were published for the same species. Subsequently, the International Commission on Zoological Nomenclature was prevailed upon to decide who had published first. One of the proposed names was *Cheirodon axelrodi*, named after the publisher of the aquarium magazine in which one of the descriptions had appeared. It was alleged by one of the other describers, however, that the publisher had falsified the date of publication in order that the fish remained named after him. Hence the satirical poem.

This second edition differs mainly in the addition of material I have written after the first edition was published (some of it much later, over fifty years later, in fact!). The original material, however, remains with only the following slight changes: (1) The statistical information included in the biography written by Braz Walker has been brought up to date (a very minor addition); (2) I have included the complete article on “flocinaucinihilipilification” since the complete original is absolutely necessary to understand the excerpt; and (3) I have provided comments before each of the major entries. The minor entries do not appear in the Table of Contents but are separated in the text by a row of happy faces, i.e., : : : : , in order to distinguish them. On one occasion I omitted (the only omission from the first edition) a very short excerpt that I didn’t find funny at all. Sorry, Marty; it’s an editor’s prerogative!

In any event, I owe my old friend, Cleveland “Marty” Smith, a deep debt of gratitude for developing the original idea and bringing it so successfully to fruition in the first edition. To quote the Bard (Richard II), “I count myself in nothing else so happy as in a soul remembering my good friends.”

Albert J. Klee



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[Author's Comment: The following is a whimsical article that introduced the term "cichlidophile" (accent on the second syllable) into the aquarium hobby. Its humor is based on exaggeration but it's by no means a satire. A satire is a critical parody but I am not criticizing anyone here; I'm a cichlidophile myself!]

ON CICHLIDOPHILES

To those of you who fancy 1-inch guppies, 1 -inch tetras and even 2-inch gouramies, it may come as a shock to learn that there are aquarists who consider any fish less than 3 inches as fish food for their own fishes! These are the cichlidophiles or lovers of cichlids. True, there are pantywaists among the cichlids but a sharp distinction is made then by using the term, "dwarf cichlids." The fish we are talking about could easily grace any Friday evening meal.

Cichlidophiles are an unusual lot. They are forever converting bathtubs and horse troughs to house "a few more pairs." Where we (the reference was to killifish fanciers here) deal in brine shrimp, they traffic in monstrous 3 to 6-inch red crawlers. Cichlidophiles often use standard nets only to handle their fish foods, preferring home-made equipment for the fishes themselves (old wind-socks, for example!). This is indeed a devoted group and for good reason, too. Cichlids are large, colorful and flashy tropicals. Their painstaking attention to parental duties is an object of admiration by many aquarists and the first fishes to be seen by visitors as they cross the threshold are the big cichlids. Due to their size, they are easily trained and frequently take food from their owner's hand.

Cichlidophiles are easy to spot. For one thing, they seldom are seen buying aquarium plants. Their charges would only uproot them and destroy the plants if given the opportunity. Secondly, Cichlidophiles are frequently seen at drugstores buying bottle after bottle of tincture of Merthiolate, so helpful for swabbing the bruised areas on their pugnacious cichlids. Thirdly, the water bill of the average Cichlidophile is apt to be appreciably higher than that of his

small-fish-fancier counterpart. This is due to the need for the frequent water changes to offset chemical and biological changes caused by large fishes with ravenous appetites in relatively cramped quarters.

Perhaps, however, Cichlidophiles have the most fun. Here is "Norman," the blue acara, with fresh battle scars received in a fight with "Poindexter," a fire-mouth cichlid. "Cederic" and "Cecily," the jewel fishes, are busily fanning a new batch of about 1,000 eggs. Ah well, anyone have an old 60-gallon tank for sale?

: :

The other day, I was invited over by my friends, Michael and LeAnn Olvey, to witness the spawning of a pair of *Metynnis* species. The Olveys have long since specialized in this genus and have gone to all sorts of lengths to spawn them. Well do I remember a report by Mike at a meeting of the aquarium society of which I am a member. Once, in order to duplicate a tropical rainfall as closely as possible (reasoning that this is the trigger to spawning in their natural habitat), Mike poured water into his *Metynnis* tank from a sprinkling can (to simulate rainfall) and simultaneously, flicked the tank lights on and off (to simulate lightening). At the same time, LeAnn banged the lids of two garbage cans together (to simulate thunder). As I remember it, this talk broke up the society with laughter. Mike took it like the good natured fellow he is and just smiled. After watching his *Metynnis* spawn, however, I am now in the market for two garbage can lids!

: :

Remember, nothing is all wrong; even a stopped clock is right twice a day!

[Author's Comment: The following employs satire, since I am criticizing here.]

A PLEA

I would like to make a fervent plea to all club secretaries and it is really quite simple. Please drop the

word “interesting” from your vocabularies! The plain truth of the matter is that, in club usage, the word is not only hackneyed, but hardly ever bears any resemblance to the truth. You all know what I mean. Check these quotes from club minutes... “...gave a most interesting talk”, “...a very interesting program”, “...an interesting film”! Surely we can better describe our activities than this?

The most damning indictment of any speaker’s presentation is that it was “interesting.” Actually this is often but a euphemism for the truth. The Secretary would liked to have said, “While the speaker rambled through his talk, I mentally glazed seven aquariums, bred scats three times and counted the holes in the acoustical tile ceiling.” But what do we find in practice? At one meeting a film on the rehabilitation of car thieves was shown by mistake. It still received an “interesting” rating in the minutes.

Of course, there are times when we are at a loss for words. How does the Secretary describe a talk delivered by a speaker who quite obviously is stoned? “Interesting,” says the cautious Secretary. An accurate report is the right of every club member, however. “The speaker departed from customary procedure by delivering his talk on multicolor guppies while entirely in the nude. His technique for turning black guppies into gold ones merely by breathing on them prompted a spirited discussion among the members, shortly after those who had been sitting in the front row had been revived.”

But perhaps the unkindest cut of all is to have the exceptional presentation treated in this manner also. I would not be surprised if, should a brilliant aquarist announce that within a span of 10 days he had bred *Monodactylus*, crossed a catfish with an inside filter and discovered a cure for water, the Secretary’s report still contained the brief comment, “Interesting”!

I should like to make it clear that this is not an indictment of club secretaries. Far from it. They perform yeoman work in a thankless job. The usual method for nominating a secretary, for example, is to do it while she is not there. Experienced club members know full well that the one meeting of the year that simply cannot be missed is the one at which nomina-

tions are made. The possibility that an absentee will be nominated for the position of Secretary, Librarian or Chairman of the refreshment committee, is too great to chance. For all but the masochists, the consequences are too terrible to behold.

[Author’s Comment: The device used in the following is a type of wordplay that catches the eye and tempts the reader to read on. The Editor’s comment helped add a bit more humor to the piece.]

THE FLOCCINAUCINIHIPIPILIFICATOR

There is a tendency on the part of far too many hobbyists today in habitually judging this or that aquarium fish as being practically worthless. In some groups whose object of admiration is a single fish such as the guppy, the betta, or the angelfish, or whose object is a cluster of species or a single family such as the killifishes or the cichlids, the habit refines itself into a sort of piscatorial snobbery. Thus, we hear statements which although in print seem harmless enough, cast sinister implications through the way the words are pronounced, e.g., “Oh him! He’s a guppy man!” or, “Yes, but he’s interested in those ‘panchax’ things!” Pity the poor beginner who falls into the hands of one of these Floccinaucinihilipilificators!

It now becomes necessary to digress a moment for a definition, a statement which no doubt holds the record for understatement ever appearing in the JOURNAL. That word above appears in the Oxford English Dictionary along with the remark that it has only been used three times in the history of the language: in 1741, 1816 and 1829. In view of this vigorous usage, it is surprising not to find the word in Webster’s! Nevertheless, it is defined as, “the action or habit of estimating as worthless.” We are confident that this word will immediately take the aquarium world by storm since by using just one word, we replace eight! *[Editor’s note: We take no responsibility for pronunciation of Al Klee’s “eight in one step to obscurity.”]*

One of the strangest results of floccinaucinihilipilification is that members of the same aquarium society

take turns sleeping through lectures, slide shows, panel discussions, etc., only to awaken and show signs of life when their own pet subject is announced. It is even more amazing when one considers that, in general, all of our fishes suffer from the same diseases, eat approximately the same foods, and inhabit approximately the same rectangular, glass-sided containers. At one time this writer overheard a hobbyist who was a specialist in angelfish, remark to his crony upon a lecture on velvet disease, "Yes, but he was talking about velvet on bettas!" How silly can you get?

But this is organized floccinaucinihilipilification where aquarists huddle together in groups... it should be mentioned that there are isolated practitioners of the art, as well. Take, for example, the aquarist who has just finished comparing his spawn of neon tetras to his friend's of the lemon tetra. "Well," he says, "You can't compare the two . . . those lemon tetras are worthless." Here the judgment goes against the lemon tets because they don't possess the brilliance of coloration of the neons. No one denies that the latter won't show up well even under photographer's lights, while the former must be carefully illuminated to show their delicate colors. But to condemn them as worthless? "Gaudy" can be used as a synonym for "brilliant coloration," as can "ostentatious." This writer frequently prefers the delicate beauty of such an unjustly maligned fish to the aurora borealis of the over-emphasized popularity leaders.

A major difficulty in the hobby today is that aquarists quickly become bored with it all. They soon run down the list of our showy popular aquarium fishes, leaving themselves ill-equipped to enjoy the many interesting fishes that remain. Thus, after having bred bettas, angelfishes and fancy guppies, they have "done all, seen all," and so drop out of the hobby. The main objection to the Floccinaucinihilipilificator is that he tends to discourage those who are willing to experiment with our less popular fishes. "You're playing with seven-spot livebearers? Get rid of them and start breeding a really pretty fish, the cardinal!"

In the early days of our hobby in this country, there never seemed to be a halt to the procession of inter-

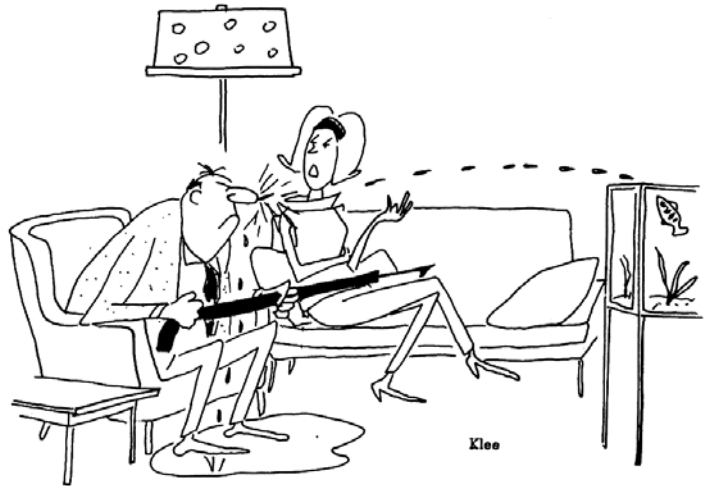
esting fishes with which to keep and breed. Those were the days when barbs, rasboras and catfishes, and anything else that was new, strange or bizarre, received a welcome to our shores. Each one received a little attention and it added something to the hobby. Some time ago, hobbyists in the author's city broke away, to their great credit, from floccinaucinihilipilification. Out of nowhere, a craze began for zebra cichlids. A little while later, interest developed in halfbeaks. Hobbyists were so busy trying new techniques and adapting their old techniques to these radically different fishes, that they didn't have time to get bored. Sure, the Floccinaucinihilipilificator said, "Why fuss with those things? They aren't worth anything!"

On a sloping, winding street in Cincinnati, in a small hip-roofed house, in a basement fish room, in a 15-gallon tank . . . this author keeps a 10-inch eel, originally obtained from the waters off Boston harbor. His name is "Charlie" and he takes pieces of canned shrimp from my fingers every day. Should any Floccinaucinihilipilificator ask me, "Why do you keep that thing?" Lord help him!

[Author's Comment: The following is another example of wordplay, this time involving two elements: (1) a catchy title phrase and (2) using mathematical concepts not generally familiar to the reader upon which to base the points made in the article (as in the previous article, however, explanations are provided).]

KLEE'S LEMMA OF MAXIMUM PERVERSITY

In the world of mathematics, a lemma is a sort of theorem used to prove other theorems. By itself, it assumes no great importance. In conjunction with other things, however it is indispensable. In this regard then, I think it is high time that Klee's Lemma is set down on paper for the critical perusal of all beginning aquarists. It is something that you will face shortly (assuming that you have not already been introduced to its implications) and you might as well be prepared now.



"Henry...why don't you and the archer fish stop this silly feud?"



"When are you going to break down and buy yourself a decent net?"



"Now if Madam is looking for economy in an air pump..."

The full title of this lemma is, “Klee’s Lemma of Maximum Perversity,” and is named after the author mainly because he has succeeded so frequently in proving it. The lemma is stated briefly as follows:

“The propensity of a fish towards the acquisition of a disease, a tendency to die or a refusal to eat or breed, is an increasing function of its cost and/or the difficulty experienced in replacing it.” Of course, being a lemma it is couched in formal mathematical terminology and may be difficult to grasp immediately. Fortunately one can sometimes understand a theorem by examining its corollaries and before we go too much further, let us quickly dispose of the word, “corollary,” by saying that it is a sort of theorem that follows as a natural consequence of a given theorem. It so happens that Klee’s Lemma has 12,376 corollaries and it is understood that not all of them can be stated here.

Corollary No. I: Given a tank containing a neon tetra costing 35¢ and a scat costing \$3.50; only the latter will, upon introduction of the disease, get “ich.” Note: In Singapore where scats cost 35c and neon tetras cost \$3.50, the corollary still holds, the neon will die.

Corollary II: Given a dealer’s tank containing the last two breeders of a stated species in town; they will prove to be both of the same sex.

Corollary No. III: Given a purchase of a pair of fishes from a dealer’s tank containing the last 1,000 breeders in town and consisting of 999 males and 1 female; the female will be killed by its mate the very next day.

Corollary No. IV: Very similar to Corollary No. III except substitute the word “female” for “male” and vice versa.

Corollary No. V: Given a tank containing split-tail guppies, ramshorn snails, gold danios with curvature of the spine, betta culls and a discus; only the last-named will go on a hunger strike.

Corollary No. VI: Given a confirmed livebearer breeder and guppy devotee; the local water supply

will be found to measure pH 6.0 and with zero hardness.

Corollary No. VII: Given a confirmed killifish breeder, *Aphyosemion* devotee or tetra fan; the local water supply will be found to measure pH 8.0 with 350 ppm hardness.

Corollary No. VIII: Given an aquarist delighting in keeping fishes with nerves of steel such as rosy barbs, guppies, goldfish, etc., and an aquarist delighting in keeping nervous and skittish fishes such as *Monodactylus*, angel fishes, etc.; the former will be found living next to a cemetery and the latter next to a public school playground.

Although Klee’s Lemma of Maximum Perversity had been stated in a form specifically concerned with fishes, it can also be restated to include other phases of the hobby as well. Rather than present such a restatement, we merely list two pertinent corollaries.

Corollary No. IX: Given an old, rusted, pressed steel frame aquarium housed in a basement on a concrete floor, and a brand new stainless-steel frame aquarium located on the second floor directly over a new sofa and several priceless works; only the latter will leak.

Corollary No. X: Given an aquarist who has just placed a good part of his collection outdoors in order to spawn them in pools during the summer, the town council will pass an emergency ordinance to spray the village with DDT (effective immediately) to control the depredations of the gipsy moth.

Those aquarists who are psychologically prepared to live with Klee’s Lemma will probably survive to become dedicated hobbyists. The others will merely add to the increasing problems of mental health agencies in every community.

[Author’s comment: Because of its implied criticism of the use of marbles, the following is decidedly satirical in nature.]

COPYITIS

I often wonder if aquarists don't like to find the most awkward procedure possible to breed a given fish. It is either this or "copyitis" that must be responsible for so many recommendations for the use of marbles in spawning the egg-scatterers such as the tetras, barbs and danios. By "copyitis" is meant the practice of one writer repeating the previous one ad infinitum until the point is reached where no one remembers where the original information came from. Unfortunately, the "hand-me-down" is frequently in error but takes on the guise of an unalterable "truth" by so many repetitions. But perhaps this is not being fair to the advocates of marbles - perhaps there is really a strong reason for their use in breeding fishes. Unfortunately, the only one that comes to my mind at present is that the marbles provide a divertissement for the parents after the exhausting spawning act is completed. Everyone knows that a game of marbles is quite relaxing. Or could it be that the real purpose is to confuse the parent fish into thinking that the marbles are their eggs and so develop in them a superiority complex?

I have always viewed the use of marbles in the breeding tank with some mistrust. None of the accounts of the professional fish collectors mention finding marbles in the streams of Africa, Asia or South America except for one instance in Singapore later traced to an East-West marble tournament of rice-growers. Yet, the books state that this is the way we breed fish. It is pushed as a surefire way to prevent the parent fish from eating their eggs. This is fine until the time comes to price marbles. It is even worse when the time comes to look for both eggs and fry, and "worsen" when the time comes to start feeding the fry. Marbles, in short, are a nuisance in the breeding setup. What then is suggested? Simply a nylon net made out of tulle, the same material used for petticoats. (Here is a project your wife can supervise.) Make an open box of the net with nylon thread. The net-box can be stapled to two sticks and suspended in the aquarium used for breeding. Add several prospective parents, sit back and watch for the eggs. On a clear slate bottom, the eggs are a cinch to spot. When spawning is completed, remove

both the parents and the net. The fry are much easier to observe when the aquarium is unencumbered with marbles or other materials. Over-feeding is less likely to occur for the visual control of feeding is now a simple task.

Do not concern yourself with thoughts of eggs sticking to the net. Nylon netting with 1/8th inch holes will permit fish eggs to pass through without hindrance. Although the books correctly list the eggs of danios, barbs and tetras as slightly adhesive, this adhesion quality is not enough to cause many of them to stick to the netting. We are speaking now of the vast majority of these species as there are some exceptions. Of course, I do not maintain that professional fish collectors find tulle petticoats in the wilds of jungle streams with any regularity either, but the net does do a better job. If there are any further doubts about the relative merits of a bag of marbles versus a nylon net, just try dropping them on the floor. See for yourself which one is easier to pick up!

: :

If you try to please every fish in the tank at feeding time, someone is not going to like it.

If you explain something so clearly that no hobbyist can misunderstand, someone will.

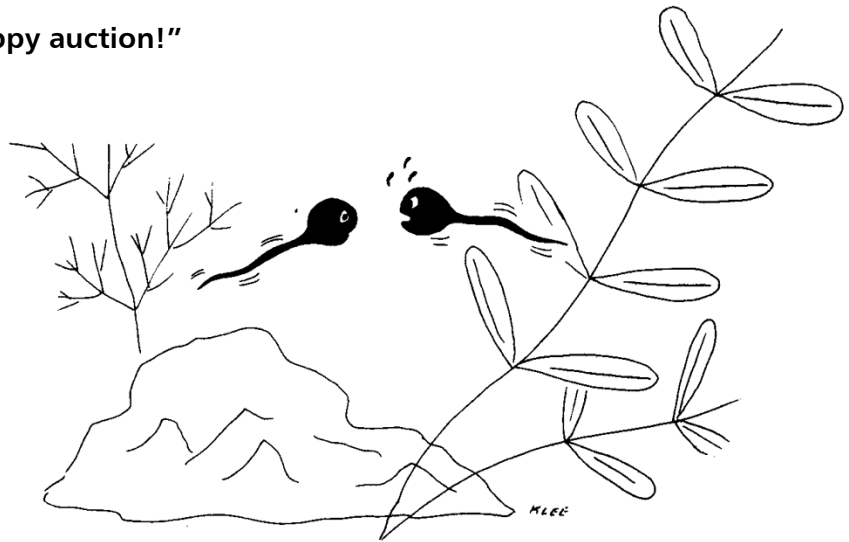
[Author's comment: The following is a lengthy excerpt from a piece that ran as a serial for nine months in The Aquarium Journal. It is a prime example of situational humor. Over the years, Ross Socolof and I orally traded this type of humor almost every day during our forays into Central America.]

A PERUVIAN ADVENTURE

During the summer of 1963, I was fortunate to renew an old acquaintance with Jon Krause of Columbus, Ohio. Jon is a former metallurgical engineer who became interested in aquarium fishes while working at Battelle Institute in Columbus, and subsequently gave up metallurgy to own and operate the Verco Fish Hatchery, a wholesale operation in that city. Jon



"I decided to stay for the guppy auction!"



"Call me 'small fry' again and I'll punch you one in the nose!"



"Stop mumbling, Gromley, and finish unloading the rest of that saltwater shipment!"

thought that the addition of a twin-engine cargo plane would be helpful in his business. When Jon bought the plane, he knew neither how to take off nor how to land it. A commercial pilot acquaintance went up twice with Jon, pointing out all that could be indicated in two short trips up and down. Then, Jon was on his own. On his first landing, he used all the runway Columbus Airport (Port Columbus) had, but he made it! A quiet, unassuming but confident man, Jon Krause is my candidate for the title of "Most Unforgettable Character I've ever met."

Jon's accounts of his experiences were, of course, thrilling to me and I mentioned that I would give almost anything to make one such trip. "Why not?" said Jon. After pinching myself to assure that I was awake, we discussed the matter further. "Would there be a chance that some of my friends might come along?" The answer was affirmative and we set a tentative date for the following summer.

It is the unique character of the killifish fancier, however, that generates a hobbyist who is resourceful and willing to put up with the hardship in a cheerful manner. It was not the guppy fancier who beat upon our door; rather it was the aquarist interested in fishes such as cichlids, killies and "oddballs." As a group we desired to get away from the artificiality of the hobby and to communicate with its most primitive and basic elements. It was not the blacklace angels we wanted to see but the wild ones with fins torn as a consequence of attacks from predators such as *Hoplias* and *Erythrinus*.

On a Friday evening, August 14, Jon called and said, "Everything set to go! Can you collect the fellas and get ready to leave Sunday?" Ready we were and take off from Columbus was scheduled for 2 p.m. Sunday, August 16. Our trip was on its way!

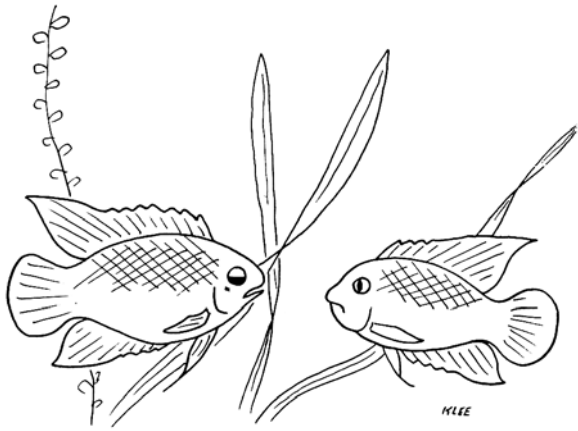
We had arranged to have Jerry Anderson arrive in Cincinnati one day before take-off and to stay overnight with Zeke. On Sunday morning, Win Rayburn picked up both Jerry and Zeke and proceeded to my house. Although my wife prepared a robust breakfast for all of us, we really were too excited to taste the food. All equipment was transferred to my station wagon, and off we went to Columbus. Our equip-

ment jutted from the rear of the car, poked out of windows and spilled over to the luggage carrier on top. We came as close to resembling gypsies as we ever would that day!

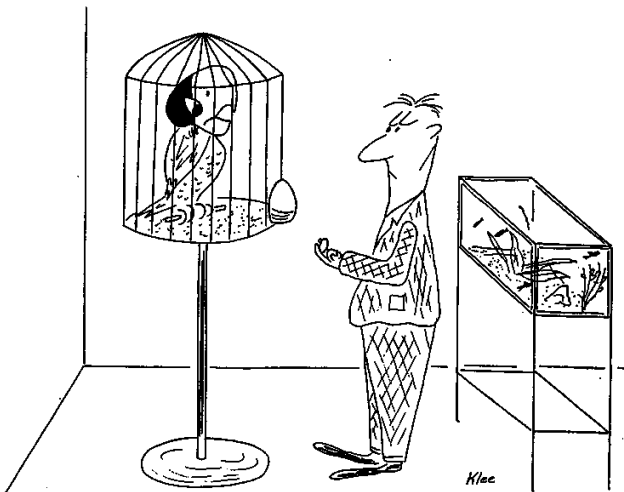
This was Jerry's first look at Jon's old B-25, some 20 years old to be exact, that looked as if it had flown around the world about a million times. The paint (what there was of it) was flaked, the seats in the pilot's compartment were worn down to the springs, and the general interior suggested a scene in the Cincinnati workhouse rather than, shall we say, United Airlines. Jerry seemed a bit concerned about a few oil leaks here and there but we told him that after all, nothing was perfect. He then disappeared for a while, muttering something about a last will and testament.

It remained to ascertain who would occupy what space in the aircraft. Jon Krause (pilot) and Bill Kretschmer (co-pilot) were automatically decided, and Felix elected to take the top gunner's seat (the top gun turret had long been removed). The tail, including the rear gunner's blister was chockfull of cargo so this left the nose cone and the area behind the bomb bay (the bomb bay was also full of cargo!). Then I piped up, "Jerry and I will volunteer to take the nose cone!" Before Jerry could say anything, Win and Zeke promptly dove into the rear section, pulled up the hatch door and locked up. "Well," I said to Jerry, "At least the nose cone has a nice view ... and you did want to take pictures, didn't you?" I ducked a flying wheel chock just in time.

Now there are two ways to enter the nose cone of a B-25. If you are on the ground, a ladder can be brought up to the nose cone hatch. In any event, one can get to the nose from midsection (which has its own door) via a narrow tunnel which is located beneath the pilot's compartment. This tunnel is so constructed that one cannot even go through it on hands and knees ... so, one must pull oneself along on one's belly. Normally, two men in a nose cone are "cozy" but with the cargo it carried to balance our heavy tail, we carried "togetherness" to a ridiculous extreme. The word was given to "button up" and Jerry and I fastened the hatch. Promptly the temperature (this was in August) rose to over 100°F! The first engine



"Things are going so badly with me nowa-days that it's all I can do to keep my head below water!"



"No, Polly doesn't want a cracker, Polly wants a worm! Fishy can eat the @#\$\$%^! cracker!"

turned over and the nose cone vibrated like an air pump. When the second engine turned over, we began to vibrate also! The racket was fantastic and Jerry and I could communicate only by shouting into each other's ear (I think Jerry was shouting "Help!" at that time but the din was so bad that I really couldn't be sure). However, since we were so crowded, we didn't have to move far to do this.

Then the O. K. was given for takeoff. Heavily laden, the B-25 lumbered off the runway with Jerry and me taking pictures all the way. We then began to relax for the long, 5-1/2 hour trip to Miami where we were to pick up Jim Thomerson and Dick Stone.

Waiting for us at Miami were Jim and Dick. After loading their equipment, a small panel truck drove up alongside of the plane with additional missionary cargo. This cargo made the plane tail-heavy so guess what? Yep! More cargo in the nose to balance it out! Jerry and I groaned but good.

After looking at the plane, Jim and Dick suggested a good, stiff drink, so we repaired to our hotel room.

Prior to takeoff from Miami, Jerry asked Jon if he could smoke during flight in the nose cone. Jon said "Yes" (under certain conditions, e.g., not during landing or takeoff, or if we ran into trouble) so while we were making the 4-1/2 hour flight from Miami to Kingston, Jerry lit up a cigarette. Now although I don't smoke cigarettes, I am a heavy cigar smoker. I proceeded to light up a nice big "stogie." Jerry gave me a disapproving look, but there was so much air coming into the nose cone from around the old Plexiglas, that the smoke blew away from us right down the center of the plane into the tail. Thus, Jerry and I were quite comfortable while smoking.

Unfortunately, the boys in the tail knew nothing of this. After a while, smoke started to billow forth from under the cargo, giving Zeke cause to think that the plane was on fire!

Win and Zeke spent the remainder of the flight to Jamaica trying to find, and extinguish, a non-existent fire. Both were nervous wrecks upon arrival in Jamaica, and only by fast footwork was I able to avoid

having a box of cigars crammed down my throat after I explained what had happened. I promised not to smoke cigars in flight again!

Kingston was a perfectly delightful place. Before the propellers came to a halt, an airport official pedaled out to our plane on a bicycle and inquired, "What airline is this?" Jon broke up the group with laughter when he unhesitatingly shouted back, "Krause International!"

About 1-1/2 hours out of Kingston, I was awakened by Felix who was in the radio compartment with Dick and Jim. He promptly handed me (through the 8-inch space over the cargo) two life jackets. "Put these on!" he shouted. "We've lost an engine and are going to ditch!" I was stunned at the news. I crept back to Jerry who asked, "What did he say?" I will never forget the look on Jerry's face when I told him.

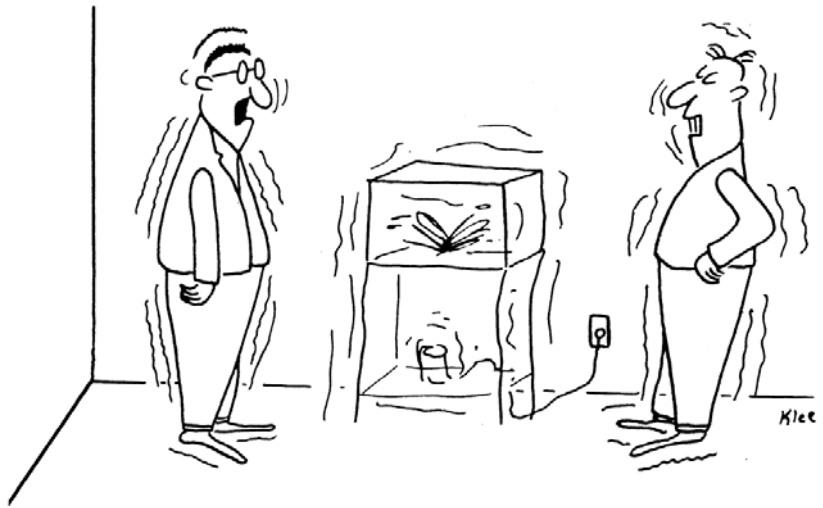
Our original altitude was 10,000 feet but we slowly lost this, the water coming closer and closer. Jerry and I wondered what would happen when we hit. Surely the nose cone would be torn off, or perhaps would just go under water? At 2,500 feet, the B-25 held altitude and Felix motioned for me to enter the tunnel. "Jon thinks we can make it on one engine at this altitude!" he yelled. I went back and told Jerry, much to his relief. At intervals, Felix would give us a sign that all was well but unfortunately, he saw no difference between "thumbs up" and "thumbs down." Consequently, we never knew whether we are going to be all right or whether we were going down.

Then, we entered a terrible storm. Every time the B-25 lost altitude in the storm, we failed to regain it. Even at maximum power, this was the best our lone working engine could do. The Caribbean was coming closer and closer. Jerry and I prayed like we never prayed before. We shook hands and said our "goodbyes."

Just then Jerry, who was somewhat in front of me, shouted, "Land, land! I see land!" True enough, we were over the coast of Panama. At this point, the Air Force suggested that we land at a World War II landing strip in the jungle known as France Field.



"I still don't think it's your glass catfish that's been nibbling at that tank!"



"I think that vibrator pump needs a little adjusting!"



"Looks like something went a little wrong with your order for a vial of brine shrimp!"

By a stroke of luck we found the field on our first pass. Unfortunately, our one engine developed very little hydraulic power and our landing gear took too long to get down. Jon had to gun the left engine to miss the trees at the end of the strip. The plane cleared these by 15 feet, went out over the ocean and almost collided with a ship! When a plane nearly hits a ship, you know that is flying low! Jerry and I, being in the nose cone, saw everything first and closest and believe me, it did nothing for our morale. We were now at 200 feet of altitude, unable to get any higher. The waves were lapping at the plane and two of us were having what might be called a “joint hemorrhage”!

The second time around, Jon lined up the B-25 on the strip perfectly. Although we did not know whether the landing gear would lock in place in time, we had no choice. Jon flipped the gear lever and set the plane down. Fortunately for us, the gear locked just before the wheels touched! The old blacktop strip was wet and with only one engine for control, the plane skidded to a stop at an awkward angle. Normally, Jerry and I would have waited for a ladder to be brought up to the nose cone but he ripped off the hatch cover and jumped approximately 12 feet to the ground, and I followed suit!

We looked around and saw ambulances, fire engines, and people in all sorts of uniforms and gear. They pressed forward to congratulate us on our narrow escape. “Thought you guys were goners!,” was typical of the remarks. I remember getting quite a bit of dirt in my mouth, kissing the ground that day! The whole thing seemed like a nightmare, especially for Jerry and me, but there had been one “amusing” incident. It seems that Win and Zeke, who had been in the tail, slept through most of the excitement! During the last few minutes of violent maneuvering, however, Win woke up and noticed that there was no vibration from the right side of the plane. He then looked through a gap in the left loading hatch and saw waves below, concluding that we were in trouble. At that time, there was no communication setup to the tail, so Win woke Zeke up and confided his fears. The landing at France Field had been very smooth in spite of it all (Jon was complimented highly on his

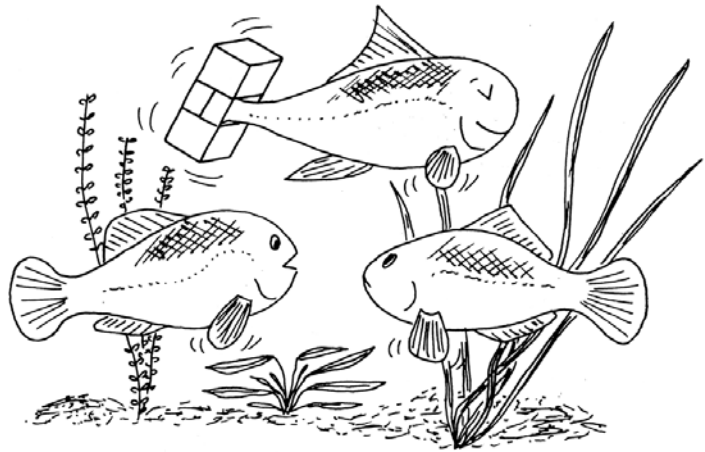
flying by several Air Force officers) so Win and Zeke actually did not know that we had touched down safely. Jon asked Bill to shut off the left engine after we had stopped but he was so nervous (weren’t we all?) that he revved it up instead. Jon just reached over and shut the engine down. But in the tail, Win and Zeke heard the gunning of the engine, and then utter silence. Win, thinking that we had lost the other engine remarked to Zeke, “Now we’re really in trouble!” They waited for the plane to crash all the while we were safely on the ground. We tapped on their hatch and told them to come out!

Our luck was running true to form for immediately upon arrival at Tocumen Airport the next day, the ancient cab that brought us broke down! The four of us, Jerry, Win, Zeke and I, went out to the plane but found that Panamanian Customs had sealed the aircraft, and the others were nowhere to be found. Thoughts of sacking out in the plane were discarded and we proceeded to the airport lounge. My evaluation of the situation went something like this. We had about two hours before scheduled takeoff and it was clear that a man had to be either crazy or drunk to get back into that airplane. We decided on the latter course and ordered Panamanian beef as a starter. It was obvious that Win was quite concerned (but no more than the rest of us) so Zeke offered him a tranquilizer tablet. The tablet looked like a small basketball but Win swallowed it post haste. “This is going to be interesting,” sez Zeke. “Why?” sez Win. “Because that was a pill that we give to elephants at the Cincinnati Zoo to tranquilize them before giving them shots,” sez Zeke. “What!” sez Win. “It was the only thing I had,” sez Zeke. “Have you ever tried one yourself?” sez Win. “No” sez Zeke. At this point, Win stopped worrying about the B-25 and concentrated on the effect of elephant tranquilizer on Man. As for the rest of us, we concentrated on “Operation Juiced” and we were feeling no pain when Jon, Bill, Felix, Jim and Dick showed up. Jon was just about to join us in “Operation Juiced” when we remembered that he was flying so it was strictly coffee for him.

Now we were ready for the most dangerous part of our trip ... the flight across the Andes Mountains, and then over the jungle. Our estimated time to



"Don't you think we could cut down a little on the light in this reflector?"



"He says it gives him more lift!"



"There are other ways to top up an aquarium, Digby!"

Tournavista, our destination, was 3-1/2 hours; 2 hours over the Andes and 1-1/2 hours over the jungle.

There was no bottled oxygen aboard the plane except for one tiny container to be used by pilot and copilot. Consequently, we would fly no higher than 17,000 feet...any higher and we would die from lack of oxygen. Unfortunately, the Andes were over 20,000 feet high at the point at which we desired to cross, and a little arithmetic indicates that we had a slight problem! Our strategy was to fly between peaks and it was a jim-dandy strategy except for one thing, i.e., clouds. We never knew exactly what was waiting for us whenever we entered a cloud. Later on, we learned that some months previous to our arrival, a Peruvian airliner crashed into a mountain because it was marked on the maps as 5,000 feet, when it really was 10,000 feet!

We were all looking hard for Tournavista, however. To miss it would spell disaster.

Then there it was! A tiny area hacked out of the jungle, its roads exposing raw earth to give it a baked look, it perched on the eastern bank of the Pachitea River, a hundred miles from the mountains.

A reception committee was waiting for us as we got out. We each grabbed a small handbag containing personal things and leaving Jon, Bill and Felix to argue with Customs, the rest of us piled into a truck and drove to the communal dining hall.

The next day at Tournavista found us ready and eager to start our exploration.

Someone announced that there was a small jungle stream behind the compound, and most of the party elected to try to reach it. This was easier said than done since although the stream was hardly 200 feet away from the compound, the ground leading to the stream dropped sharply and was covered by the thickest sort of jungle imaginable.

We followed the stream for a distance and observed that it started to run over a solid rock bottom, finally turning into a 10-foot waterfall, a picture right out of

a Tarzan serial! Just before the waterfall, however, we discovered a silvery fish swimming about in a pool formed by the stream. Our attention now turned back to the waterfall, which culminated in a pool about 4 feet deep, 20 feet long and 12 feet wide. The water was cool but not too clear due to its roiling by the fall of the water. For a while, the pool served Win and me as a private "swimmin' hole." The air temperature in the afternoon frequently went to 95°F, so we had real need of a means to cool off. We had no bathing trunks but since the pool was not exactly situated in the middle of Times Square, we did not have to worry about being interrupted swimming in our "birthday suits." The second time out, however, Win complained that something nipped him. Nothing happened to me so I accused him of having an over-active imagination. He complained again the third time out and as I was laughing at him, something pinched down on the left side of my chest. At this, I jumped four feet straight up out of the water, did a right turn and wound up on a rock ledge! We discovered that we weren't the only swimmers in that pool and that it was infested with a smallish crab, about two inches overall, that had pinchers a full one-half inch long! Since we were swimming in the raw, we were a bit concerned about where the "phantom" would strike next and so, reluctantly gave up our favorite swimming hole.

We placed our *Prionobrama*, *Rivulus* and assorted catfishes in the compound and returned to Tournavista for a quick lunch of papaya and steak. The Peruvian idea of steak, however, is two-thirds shoe leather and one-third garlic. By breathing in the general direction of the mosquitoes after eating the steak, we did better than even a can of "Raid"!

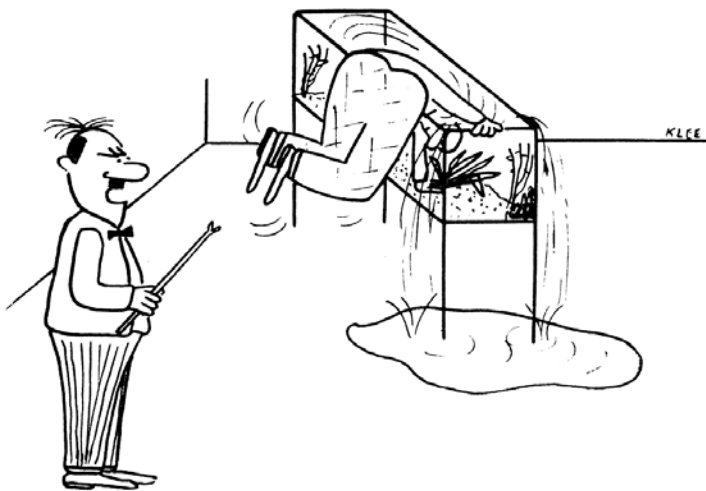
Our next destination was Pucallpa, the major part upstream on Peru's mightiest river, the Rio Ucayali. A dirt road connected Tournavista with Pucallpa, a distance of some 60 miles. If the weather is good, the average travel time is three hours. Our transportation consisted of a bus-like structure mounted on a Ford truck chassis. The driver's nickname was "Lobo" (i.e., "wolf") although Barney Oldfield would have been more appropriate! Jon, Felix, Zeke, Jim, Jerry, Win and I hopped aboard along with a



"I don't mind the 'Ick'" so much but the cure sure makes these plants taste salty!"



"No Ma'am... it's not what you think. One of my 5-gallon tanks sprung a leak!"



"Care for a planting stick?"

small contingent of Campa Indians. Our equipment was stowed on top of the truck and considering the cramped quarters within, Jim and I elected to ride on top over the cab. This, as it proved, was a big mistake.

Our driver evidently was devoting his life to rounding off the teeth on the Ford's gears. It was a point of honor with him not to use either first or second gear, or the brakes, if it could possibly be avoided. There was one speed only, and that was "full ahead." The low-hanging branches frequently did not clear the top of the truck, let alone Jim and myself, every so often a branch would knock me flat. I perfected a ducking procedure but it was not 100 percent effective. Further, it was cold on top of the truck for as soon as the sun goes down, the jungle becomes quite cool. Fighting both being knocked silly and incipient frostbite, the perilous journey screeched to a halt in the main street of Pucallpa at 1 a.m. Our next problem was accommodations. Jon, Felix, Zeke and Jim obtained "dormitorios" at a doubtful structure known as the "Hotel Los Angeles," and after pounding on doors for an hour, Jerry, Win and I found sleeping quarters at the Hotel Mercedes, Pucallpa's "best." Later, we really were to appreciate the Hotel Mercedes.

At 2 a.m., we were all tired and thirsty so the Mercedes group found an all-night beanery posthaste. Being the only one with a speaking knowledge of Spanish, I was commissioned to order beers for all. Either it was just too late and I was too tired, or my high school Spanish teacher had steered me wrong, but in either case what arrived was an evil-looking mixture of coffee and sour milk. I really took a ribbing from the crew that night.

The next morning, the Mercedes group joined the Los Angeles group for breakfast. We discovered a newly-opened restaurant that featured a "complete breakfast." It started off with papaya juice but next on the agenda was something called "Quaker." None of us knew the translation for "Quaker" and when the proprietor was questioned, his answer made no sense at all. When it arrived, it turned out to be a thin gruel of Quaker Oats, served up in a chipped porcelain mug! Three-quarters of the way through the

"Quaker," Win discovered his to be full of maggots. Sure enough, all of our cups had this unbargained-for extra additional protein. Since there was no extra charge and in view of the fact that they appeared well-cooked, we downed the remainder with a stoicism typical of our Peruvian friends. Afterwards, I always ate wearing my sunglasses and with my eyes averted to the ceiling. It was much better for my morale and I didn't want to panic my stomach by sending distress signals in advance.

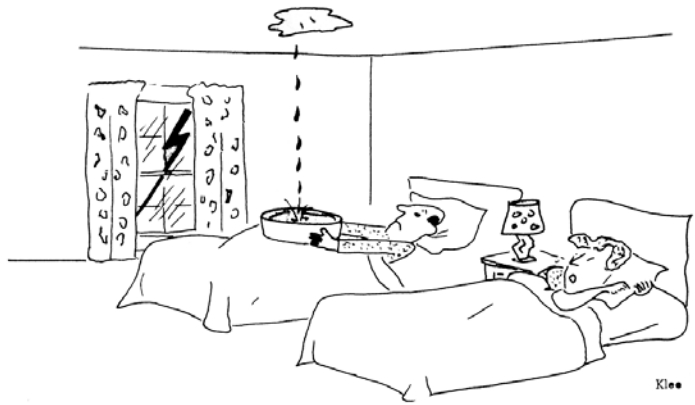
The business of fishing the Ucayali River and its tributaries now began in earnest. Not waiting for the canoe, we started to seine right along the shore next to the river steamers.

Especially prevalent were the parasitic catfishes of the family Pygidiidae, those unpleasant little creatures reputed to enter the genital openings of humans upon occasion. I was especially interested in these creatures as I wanted to collect them for the Smithsonian Institution. Some clown in the crowd had suggested that I wear a pair of cast-iron jockey shorts while collecting them but his whimsy disappeared as he and a companion brought up a net full of medium-sized piranhas. We concluded that, if we weren't careful, the whole lot of us might wind up singing second soprano at church services if and when we returned home.

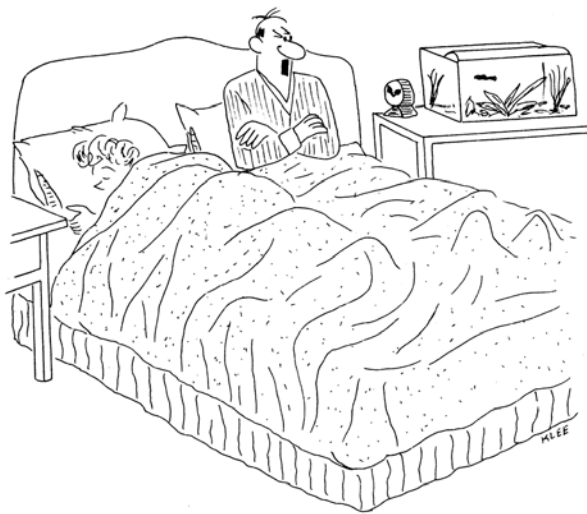
Our bill at the Hotel Mercedes came to \$2.40 for the night and when we found out that the Hotel Los Angeles was only charging 80 cents a day, Jerry, Win and I moved in with the others. This, it turned out, was a grave tactical error. Win and I elected to share a double and our landlady led the way. After unlocking a rusty padlock which secured the door, we viewed a musty, disheveled room which looked as if the last occupant had left minutes before the police arrived looking for him. Our landlady took the sheets off the beds and simply turned them over (they were in such a condition that they could have turned themselves over!) The mattresses were of straw as were the pillows. It became clear that we were sleeping on top of a rather active colony of sundry animals belonging to other than the vertebrates. The cockroaches were four inches long but they did not wake us up unless they stomped their feet. The iron cots upon



"Sam has a bit of a hard water problem!"



"I still don't think that's the right way to get rainwater!"



"For the last time, Martha, if you don't shut up that fool talking catfish...!"

which we were sleeping moved about innumerable times during the night, but neither Win nor I cared to investigate too closely who or what was providing the motive power.

The following day we explored Pucallpa, a city of some 50,000 inhabitants. Win and I sampled the products of a street vendor (a drink made from red corn called “chicha morada” was our favorite) and afterwards, dubbed them “instant dysentery.” We had expected to run around a lot in Peru, but not that way!

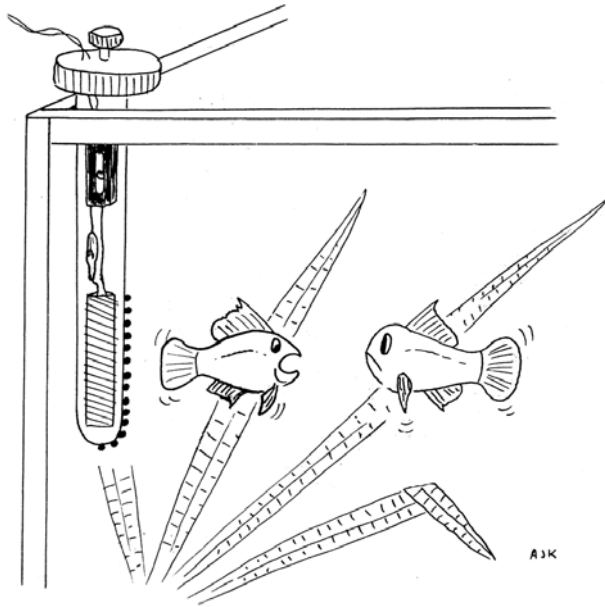
It was rumored that it had rained in Tournavista but we had no idea of the condition of the road between Pucallpa and our home base. Win, Zeke, Jerry and I hopped on our “bus” for the return trip but the authorities would not permit the bus to leave town, fearing that it was too dangerous to attempt the muddy, slippery roads (and then too, there was some concern for the road itself!). “Lobo,” our driver, returned the four of us to the Hotel and informed us that he would be back at 4 a.m. the next morning. True to his word, his arrival in the wee hours was signaled by shouts of “Arriba!” and vigorous blasts of the raucous horn. In a soporific stupor, we herded into the vehicle. The next few hours were spent in picking up other passengers, including men, women, children and chickens. However, we couldn’t complain since we ourselves were featuring fish, capybara and monkey. The passengers didn’t mind and I doubt that they would have even affected a glance had we tried to board a hippopotamus!

This time, the authorities let us through. At the fork which separates the Tournavista road from the Lima road, the constabulary still blocked the latter but we were free to continue. The road was somewhat muddy and it became even more so as we progressed. Soon the road turned into nothing more than 8 inches of mud and our truck-bus slipped and skidded from one side of the road to the other. Every few minutes, we were all obliged to jump out and push, and every 20 minutes Lobo was forced to stop to let the engine cool off. We had to make frequent trips to nearby creeks for radiator water. At these stops, the Indians

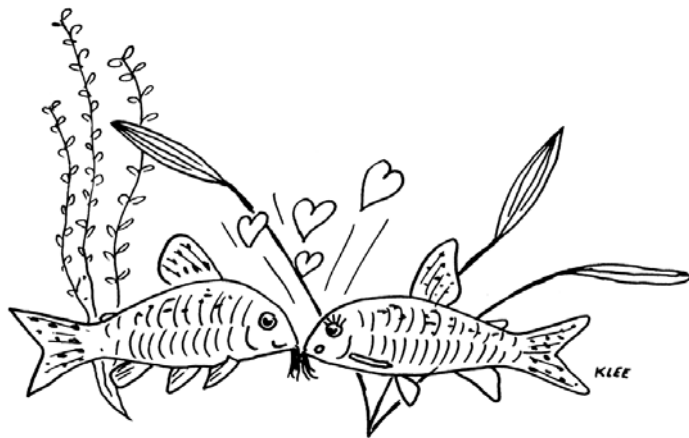
on board would exercise their chickens, and we would graze our capybara.

Many times, the truck would almost slide off the road with the prospect of falling into the ravines which occasionally would line both sides. It started to rain and we were up to knees in mud, tired and miserable. Further, we had had no food or water for hours. Finally, Lobo came to an isolated Campo Indian house by the side of the road and we stopped to bargain for food and water. “Quaker” was number one on the menu but it tasted this time, better than a filet mignon. With the Quaker came a mug full of yucca brew made in the following manner. The Indian wife would collect the roots of the yucca palm, and proceed to chew them fully. When sufficiently softened, she would spit this into a large, cast-iron kettle, continuing until the kettle was full. The kettle was then set aside for a week to 10 days, whereupon the mixture would ferment. It tasted like sweet, somewhat alcoholic buttermilk, containing lumps of woody rhubarb. I doubt that the beverage will ever replace Pepsi Cola here in the States, however. Again, at the time it was pure ambrosia.

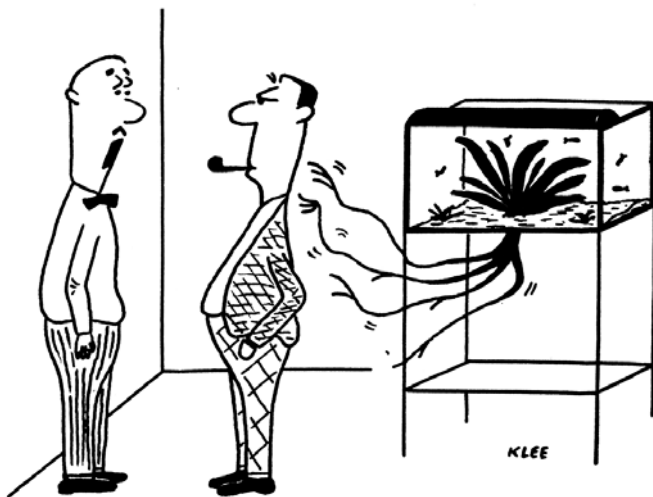
We came to a sharp drop in the road which was under about 4 feet of water. We marked the road where it went under water and timed the drop of the torrential stream. We calculated that it would be close to midnight before we would be able to get the truck through. Zeke and two of the Indians finally managed to ford the stream and an hour later, Win, Jerry, and I ferried our equipment across (wearing the monkey and capybara as hats)! Win struck out for Tournavista, some 10 miles away still, while Jerry and I guarded our belongings. It turned dark and soon we discovered that our flashlight batteries were exhausted. Our 10-minute spot “bushmaster checks” had to be discontinued and we promptly imagined all sorts of animals lurking about. This was not so funny since this was jaguar country and these oversized pussycats were the last things we wanted to see. We were well-armed, however, Jerry having a sharpened Popsicle stick and I having a safety razor. Help arrived from Tournavista in the form of a 4-wheel drive truck, and soon we were back in camp. In 29 hours, we had traveled but 60 miles!



"I prefer my eggs hard-boiled!"



"Oh Charlie! You tickle!"



"Aren't you using just a bit too much plant food?"

During our stay in Tournavista it became known that we desired animals of all sorts (for the Cincinnati Zoo). Indians (many of them children) brought us many animals and it wasn't long before we had quite a collection.

We had to store these animals somewhere, and the closets in our dormitory served the purpose admirably. Zeke had the crocodile concession in his closet; Win and I had the monkey and marmoset concession, Jerry had the agouti and sloth concession, the poisonous snakes were on the back porch, the boa constrictors on the front porch, the tarantulas were in cans in our living rooms; and so it went. One day our Peruvian maid opened the door to Jerry's closet to deposit his laundry only to be greeted by Fluffy, our 3-toed sloth. She took off through the house, toppling furniture as she went. Fluffy was later found, hanging upside-down from the rafters in the bathroom. Our maids soon learned to open doors in our dormitory with a broom handle only!

The time to return home drew near and we all pitched in to box the many fishes caught. This was an all-night operation. First, the cardboard boxes were assembled and then filled with their own plastic bag. The bags were filled with water and the long, hard process of netting, sorting and placing fishes began. This took us until 3 o'clock in the morning and we were plenty tired. After a few hours' sleep, we returned to the compound and tied off all the bags, closed the boxes and loaded them onto a truck. At the plane, cargo, fishes and other animals were loaded aboard.

Many of our cages were made on the spot a few days before, of mahogany, a very available wood in Tournavista. I felt criminal using this wood on mere crates! Zeke discovered a convenient way to ship crocodiles, viz., by just slipping a canvas bag over their head and tying it behind their front feet. One large croc, however, simply wandered off, never to be found. If, by chance, you should happen to find a crocodile in Peru with a bag over its head some day, it's ours!

There was one incident during loading. Zeke temporarily stored two large crocs in the bathroom, ne-

glecting to pass this information to the rest of us. Win strolled in to use the facilities and was promptly attacked by one of the reptiles. Win did not break the 4-minute mile, but then Roger Bannister didn't have his trousers down when he did it either!

Our plane was heavily loaded and it had sat, unused, for over 17 days in the jungle. The strip was 4,900 feet long and we calculated that we would need 4,300 feet for take-off. We started our roll but old Betsy balked at leaving the ground. I could hear Bill, our co-pilot, yelling into the headset, "Rise, Baby, rise!" We were only 12% off on our take-off calculation (12% of 4,300 feet is 516 feet, add that to 4,300 and you get 4,816 feet) and so had a comfortable 84 feet to spare.

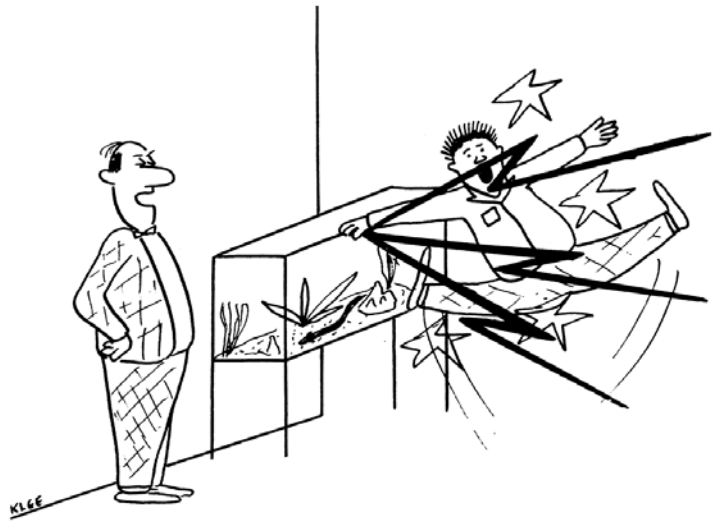
Our arrival at Miami International Airport on Labor Day caused quite a commotion. When the animal inspector learned about the crocodiles lying around loose in the plane, the bushmaster, the boa constrictors, tarantulas, etc., they looked at each other and just stamped the plane, "PASSED"! For some reason, they were not anxious to make a personal inspection, especially when we couldn't remember which container the bushmaster was in. We arrived home in Columbus (Dick and Jim left us in Miami) to be greeted by wives and children, friends and relatives. Fish, equipment, souvenirs, animals and personal belongings were unloaded and transferred to our personal automobiles. We took Jerry, loaded with fish, spears, crockery, bow and arrows, etc., over to the commercial side of the airport where he caught a plane home. I don't think that the ticket agent has recovered from that sight yet!

A lot of people have asked me if I would do it all over again if the opportunity presented itself. The answer is that I wouldn't have missed the trip for anything in the world but as for repeating it, I quote Jerry's favorite expression, "Lots o' luck fella!"

[Author's comment: The following is a parody . I wrote it not to describe a fish or explain equipment or techniques, but just for



"I've noticed that these archer fish will eat practically anything!"



"Crepe soles or no crepe soles, I still think that electric eel is getting to you, Gromley!"



"Oh, all right - I'll turn down the air a little!"

the heck of it. The editor printed it because he felt it was relief from the usual aquarium article (he also found it amusing).

HOW TO WRITE AN IMPRESSIVE FISH ARTICLE

The editors of magazines get a number of inquiries as to exactly how one goes about writing an article for an aquarium magazine, or more to the point, how one writes an article having a high probability of acceptance by editors. Fortunately, the alleged difficulties encountered in writing an impressive fish article can easily be overcome if the fledgling author merely observes a few rules and the unbeatable outline which follows.

The first item of business in writing an article is choice of subject. Along the years, certain topics have become standbys in the hobby as, for example, the breeding of zebra danios. Surprisingly, hardly a month goes by without some hobbyist demanding information on this subject. Judging by the number of such letters received by aquarium magazines, the breeding of zebra danios is the best-kept secret in the hobby. Let us, for purposes of exposition, however, assume that you have selected this subject for your article. Then the next item on the agenda is a title.

The problem with a title such as "Breeding the Zebra Danio," is that it just doesn't impress anyone. Even the dyed-in-the-wool guppy fancier who might be under the impression that the zebra danio is a livebearer, would not be impressed by this rather forthright beginning. A far better title would be, "Fertility, Caudal Temperature and Plutonium Uptake of the Asian Cyprinid, *Brachydanio rerio*." Now do not misunderstand me. Even with this title, hardly anyone is going to read your article but it will be dutifully clipped out and saved for future reference. Articles with impressive titles are always clipped out and saved for future reference.

There are, however, a few hobbyists who do read fish articles. These people will read anything, including the list of ingredients on the label of a distilled water bottle, so you must be prepared to deal with them. A good way to begin your article is with a few facts. One might observe, for example, that the zebra

danio was named in 1873 by the famous Israeli ichthyologist, Shadrach. An aside on the date seems to further heighten interest such as, "It was hot that year." At this point, the reader is totally on your side for rather than admit that he has never heard of Shadrach he will nod knowingly and say, "Yes, Shadrach certainly outdid himself in 1873."

The goal of the author is to force the reader to ultimately give up and concede his defeat. There are a number of approved ways of doing this. One way, for example, is to continually switch terminology without warning, e.g., use "caudal" and "tail" fin interchangeably. This throws the reader entirely off the track and makes him easy prey for one of the oldest tricks in the book, viz., the use of a random asterisk. When a reader sees an asterisk, he immediately recognizes it as the standard symbol for a footnote and starts to look for one. The most effective place to utilize the random asterisk is right after a statement which obviously requires clarification, e.g., "These five discus were easily sexed by the use of Warburton's Technique.*" Readers will frantically search for days for the missing footnote.

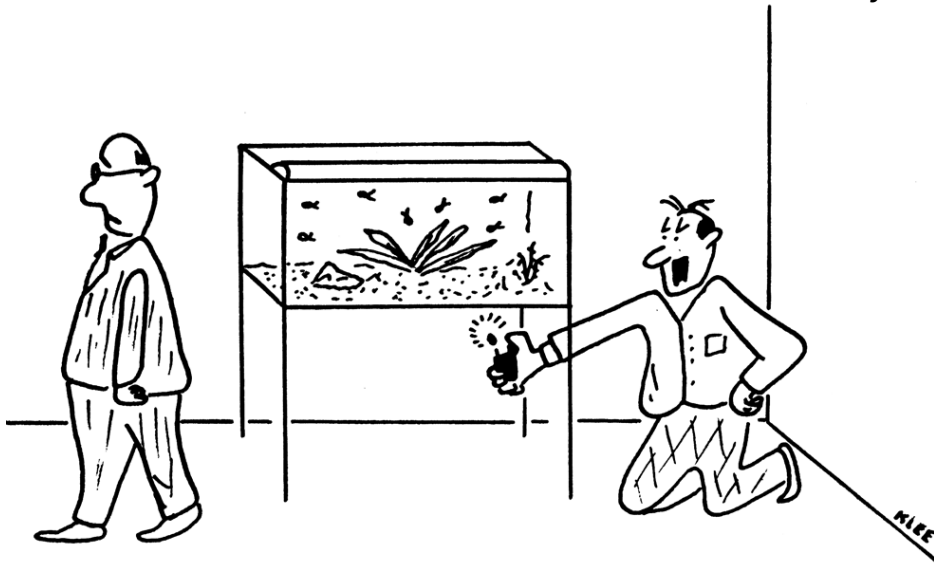
There are a number of key phrases that should be mastered by every author. The most valuable among them is, "It is obvious..." and an example would be: "It is obvious that in light of Applezweig's Law, the progeny of a cross between a red, three-quarters black male Guppy and an albino female, would result in 63% green delta tails, 28% polka-dot males and 9% striped females." This device is especially effective should the percentages add up to a number other than 100. No self-respecting reader would dare take issue with any statement that began, "It is obvious..." Our example also provides us with a double-barreled opportunity to throw the reader into utter and abject frustration. Notice that we have referred to "Applezweig's Law." Suppose we have added, "(see bibliography)", immediately after this. Two courses would then be open to us. The simplest would be to omit any bibliography whatsoever. A more diabolical device, however, would be to list the references but to relegate it to a source guaranteed unobtainable such as the "*Peking Quarterly for Psychoceramics*."



"I'll give you two minutes to get that water off the floor!"



"Well, maybe you better put your hands down...!"



"While you're downtown, how about getting me a 75-watt heater?"

There is, of course, a right and wrong way to describe your experiences. We do not condone outright lying and certainly encourage all authors to be as truthful as possible. But there are, shall we say, certain liberties that are permissible. Suppose, for example, you dipped your finger into the aquarium to see if it was too warm or too cold for your fish. Refer to this as an “experiment.” It also helps to give the experiment a number. For example, “Experiment number 18 was to determine the water temperature in ambient surroundings.” The word “ambient” means “all around,” as does the word “surroundings.” This is known technically as a “tautology,” i.e., a needless repetition, and its value lies mostly in the fact that authors frequently get paid on a per word basis. Effective use of tautologies may increase the fee earned for an article to 50% or more.

Illustrations do wonders for any article. An effective gambit for a zebra danio article is to show an unlabeled photograph of a spotted danio. Readers go paranoid trying to equate your written description with the photo. A device similar to the random asterisk is the random chart. This is a chart which reads somewhat as follows: “Factor A - 12.5 grams, Factor B - 3.2 grams, Factor C - 17.1 grams, etc.” The reader, upon completion of the article, fails to recall that such a chart was mentioned at all in the text and suspects that he skipped a page or two. He then is forced to re-examine the entire article, looking for a reference to the chart. If one feels absolutely compelled to refer to one’s illustrations, one can always discuss the “blue” line on the graph, and the “red” one, etc., knowing full well that the graph will be printed entirely in black and white. The use of this technique has sent more than one reader to the optometrist for a color-blindness check.

Closing paragraphs are quite critical. The standard of course is to complain bitterly that your fish is overlooked by most aquarists, hard-to-find in the stores and fast being pushed aside by more exotic forms such as lyretail knife-fish. If you are writing about the zebra danio, this will not be an easy job but it can be done. How to write an impressive fish article? Let me quote from Gilbert and Sullivan’s operetta, “Patience”:

“If you’re anxious for to shine in the high aesthetic line as a man of culture rare,

You must get up all the germs of the transcendental terms, and plant them everywhere,

You must lie among the daisies and discourse in novel phrases of your complicated state of mind,

The meaning doesn’t matter if it’s only idle chatter of a transcendental kind.”

[Author’s comment: The quotes that start towards the middle of the following article are pure parody.]

IT TAKES ALL KINDS!

Time and time again, aquarists encounter the “fish phony.” Although the old-timers in the hobby can recognize these characters a mile away, the beginning aquarist is sometimes overawed and taken in. Actually, the phony is easily spotted and his most obvious characteristic is the “fact” that he has spawned almost every aquarium fish that has ever been recorded. This includes, as a starter, neon tetras, rasboras, discus, etc. and then finishes off with scats, Monodactylus and clown loaches. Not too long ago, a dealer friend of mine encountered one of these not so rare creatures. The phony was explaining his method for spawning neon tetras. It seems the phony places the breeding tank on a double thick layer of carpeting (to lessen the possibility of vibrations) and covers it with brown paper. The brown paper has a small hole cut in one side. Then, from an adjoining room, the phony uses a pair of binoculars to observe the breeding fishes without disturbing them. This would be a very funny story if the phony was kidding but the fact is the phony had been telling the story for so long that he really believed it! Upon inspection, the phony not only did not have any neon tetras at home, but my dealer friend couldn’t even find a carpet!

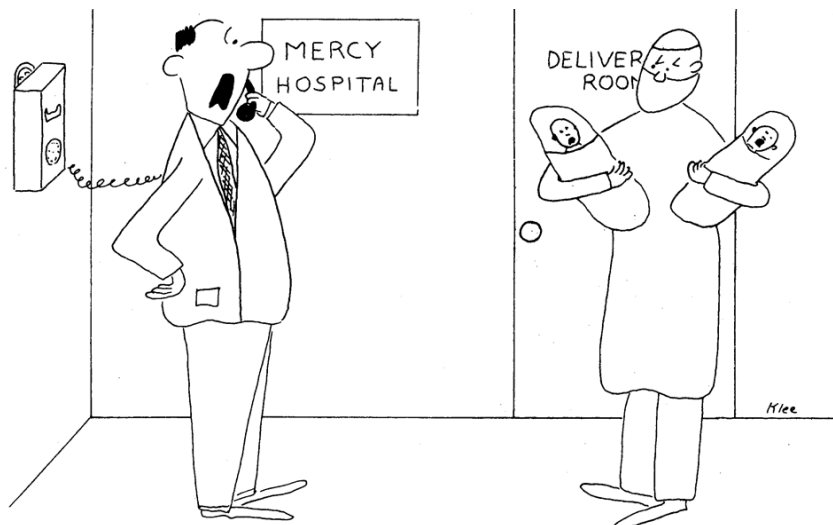
Perhaps we aquarists need the services of a good psychologist to tell us why we find frauds in our hobby. No doubt other hobbies have their troubles too. I have been reasonably successful in discouraging frauds by topping their own stories. This not only gives my friends a good laugh, but the phony usually



"Nothobranchius or no Nothobranchius, I still think you better let him take a drink!"



"Sam finally has the problem of that leaky tank in his basement solved!"



"Hello, Sam? About that expedition up the Amazon we planned this spring..."

departs the fish hobby for some other. Here is a typical story that you might try the next time a phony comes your way.

“Before discussing their breeding, some observations on caring for Scats would be in order. In general, they are exceedingly hardy fishes. I have kept scats in tanks where the water temperature rose to over 120 degrees with no discomfort whatsoever. (Of course, the fish died but I suffered no discomfort whatsoever.)

“It is true that they are fussy eaters as live six inch *Astronotus* placed in their tank are totally ignored. It was only after some difficulty that an acceptable diet was found for these fishes. I feed them a mixture of noodles and sauerkraut about three times daily. Scats are essentially scavengers and this diet closely resembles their natural fare.

“For a long time, hobbyists experienced no little trouble in keeping scats because of the peculiar water conditions in which they are found in nature. They are most observed in brackish water where the effluent water of rivers mingles with the ocean. To simulate these conditions, I utilize, to each gallon, two level teaspoonfuls of milk of magnesia and one aspirin. The only drawback to this method seems to be the difficulty in seeing both fish and plants, but to observe the increased activity of one’s scats happily dashing themselves against the walls of their aquarium more than makes up for this minor defect. The aspirin effectively counters any headaches acquired by the fish in this activity.

“Before breeding your scats, they must be sexed. With a little practice this poses no great problem. The method recommended utilizes a garden worm of about 4-inch size. The worm is carefully washed and then dropped into an aquarium containing a scat. If she grabs it and eats it, the fish is a female. In a similar manner, if he grabs it and eats it, the fish is a male. Using this method, I have successfully sexed over 1,000 scats.

“The breeding of scats follows the usual cichlid pattern with a few minor deviations. One noticeable difference is that the eggs take care of the parents

instead of vice versa. After the eggs, which are cubical with alternating red and blue stripes, are laid, the parents immediately take their positions upon a flat rock or other level surface. The eggs take turns in fanning the parents, ostensibly to prevent milk of magnesia particles from falling upon them and causing athlete’s fin, a disease peculiar to scats.

“After 48 months, the eggs hatch. If the original mating was between two tiger scats, the young fish will be perfect replicas of their parents. If the mating was between two silver scats, the eggs will be infertile and therefore eat the parents. When a tiger scat and a silver scat mate, the offspring invariably result in gold guppies, again proving that Mother Nature knows best.”

: :

Dirt automatically expands to fill the size of the filter allotted to the aquarium!

Everything in the hobby costs more money than you have.

If one aquarium is good, two must be twice as good.

If everything is going well in your aquarium society, you are probably overlooking something.

If you fool around with a tank long enough, it will eventually break.

It is easier to get into the hobby than it is to get out of it.

If you can name a fish disease, then you know what it is.

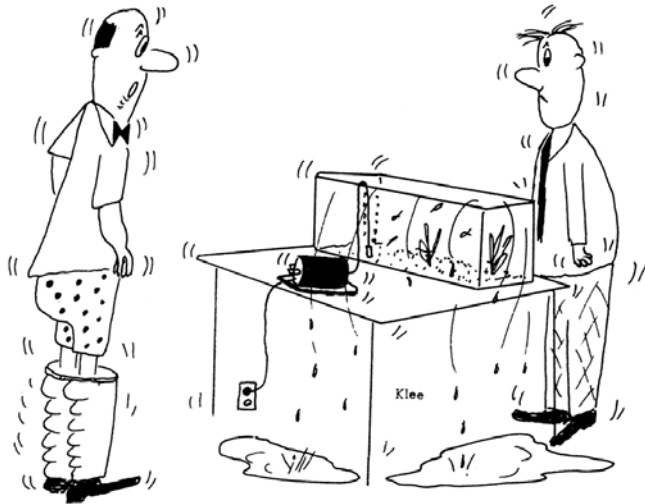
Whatever you want to do in your fish room, you have to do something else first.

If anything can go wrong in the aquarium, it will.

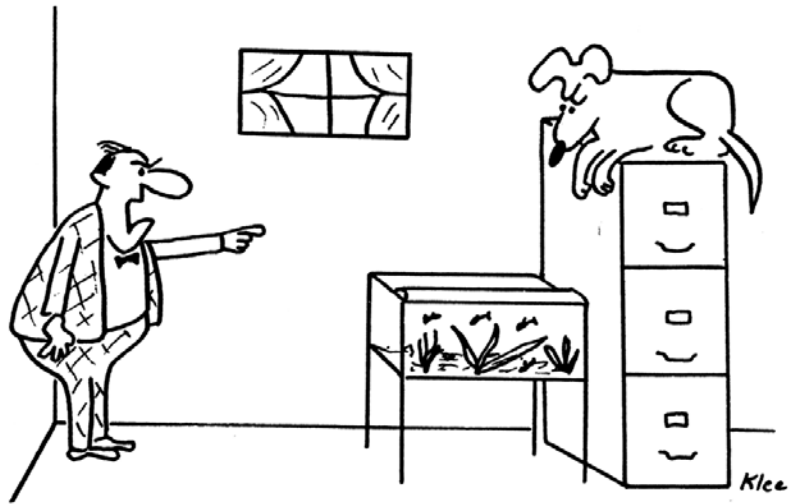
It is a fundamental law of aquarium experimentation that nothing ever quite works out.

Nothing in this hobby is ever as simple as it seems.

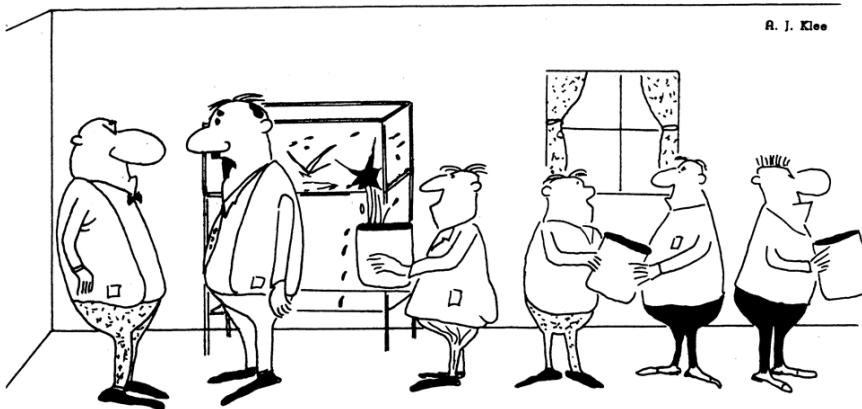
: :



"I think you should turn that vibrator pump down a little!"



"S'help me Roscoe, if you touch any of those catfish..."



"That's not what I meant when I said to take care of that leak!"

[Author's comment: Like the piece on Club Secretaries, the following was intended as pure satire.]

BEDTIME ANYONE?

Recently I attended a meeting of an out-of-town aquarium society, the results of which may provide some food for thought for other such organizations throughout the country. Because my name is not pronounced the way it is spelled, I was able to attend "incognito" and to settle down in the rear row, relax and observe the proceedings come as they might.

The meeting was scheduled for 8 p.m. but it actually started at 8:20 p.m. The first order of business was the reading of the minutes of the previous meeting. After 20 minutes had elapsed, it was obvious that a man with a No-Doz concession would have made a fortune and indeed, I myself remained in a sitting position solely because the shirt I was wearing was heavily starched. At frequent intervals, corrections, additions, deletions and other carefully assorted trivia were offered. A typical correction involved changing a sentence like, "Grape juice was served..." to "Orange juice was served..." Consequently, I reminded myself to forego the liquid refreshment that evening. Any drink, the flavor of which is difficult to distinguish between orange and grape, is definitely to be avoided.

Fortunately, the Secretary retired some seven pages of corrections later and "old business" was finally introduced. It turned out that this was mainly concerned with a previous show. The audience emerged from its chrysalis and a free-for-all, round robin mayhem commenced. Apparently, some dozen or so entries were overlooked during judging. Since the judges wisely lived about 100 miles away, an informal contest was held to find an unfortunate at whose feet the blame could be laid. Using a logical process with which I am not familiar, this turned out to be the Sergeant-at-Arms. Another crisis occurred when it was discovered that the Show Chairman had been soundly berated by the exhibition hall's owner for eating a chicken (or was it liverwurst?) sandwich on

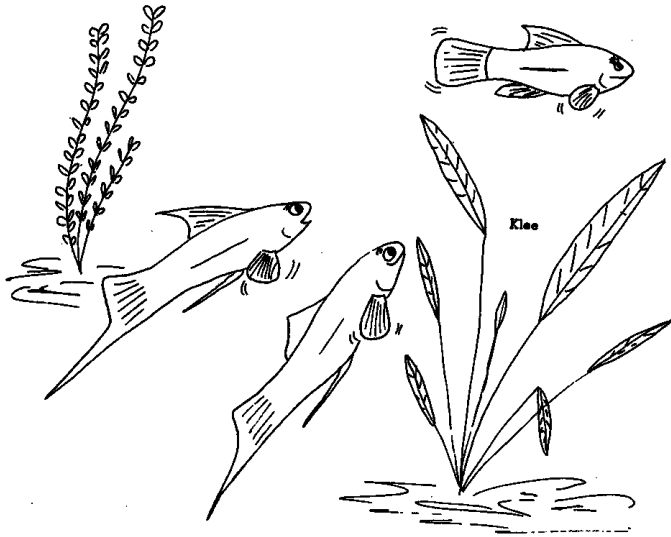
the premises. This was adjudged an affront to the society and a committee was appointed to investigate.

Relief was promised when "new business" was announced. When a member rose to announce that he had two amendments to the constitution to propose, I edged closed to the door. It would be too painful for me to describe the subsequent discussion and cross-discussion. Massive doses of tranquilizer still have not settled my jangled nerves. One of the amendments involved rules for election of officers although from what I was able to observe, this could just as well have been decided by drawing straws, the loser being required to assume office.

Break time arrived and along with it, the fish-of-the-month bowl show. However, judges had not yet been selected so a draft was made. One lady tagged for this purpose protested, all the way to the judging table, that she knew nothing whatsoever about judging fish. This proved to be an understatement for the awards appeared to have been made on the basis of a table of random numbers and a roulette wheel.

The raffle time commenced. Twenty or so small items were available and each one was raffled off separately, an agonizingly slow process. There was a moment of panic when I saw that the next item was a bag of charcoal and wondered if it would be raffled off on a grain basis. The bag broke, however, thereby avoiding confrontation of the problem. The program finally started at 10:15 p.m., about two and a half hours after the official start of the meeting. On the long drive to the meeting I had fretted about being late but I could have easily stopped off and had a valve job done on the car without missing a thing. Both the car and I would have been better for it, too.

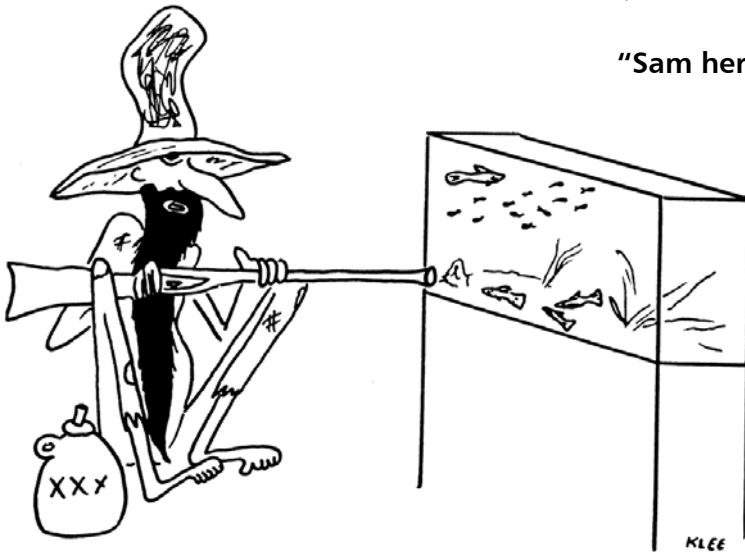
My last thin thread of patience almost snapped when I found that the program consisted of slides of the show mentioned previously. The pictures appeared to have been taken by someone afflicted with Parkinson's disease. No attempt was made to discuss the fish shown but I did get a glimpse of the chicken sandwich that caused all the discussion during the business meeting. Unlike the fish, however, the chicken turned out sharp and clear on the slides.



"All systems are go!"



"Sam here has found a real acid peat moss for spawning killies!"



"One uh you boys gotta marry her!"

Shortly after 11:15 p.m., it was announced that there were three reels of movies of the show to be run next. At this point hysteria took over and I broke and ran, not relaxing until after I drove well beyond the city limits. A number of times in the past I have urged hobbyists to attend meetings of their local aquarium societies. If the foregoing account bears any resemblance to your own experiences, you have my profound apologies indeed.

[Author's comment: The following piece relies on exaggeration, understatement and situational humor. Unlike satire, it is gentle humor.]

ON NEATNESS!

If aquarists were suddenly to give up their fishes and keep live rattlesnakes instead, there is little doubt that their hobby would become considerably neater. This is to say that hobby equipment would not be scattered about nor would cages be placed upon shaky supports and left half uncovered. I know that if I were forced to keep rattlesnakes, my motto would be, "A place for everything and everything in its place," with emphasis on the latter part of the motto.

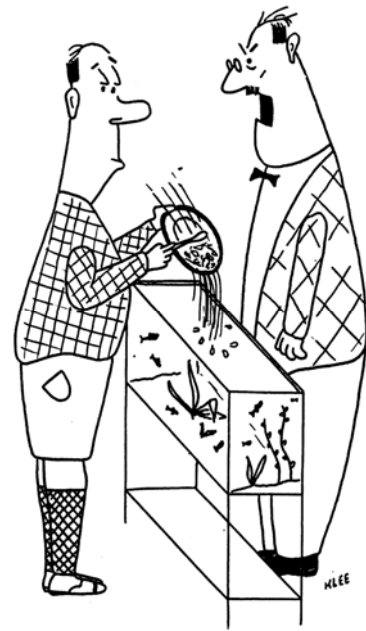
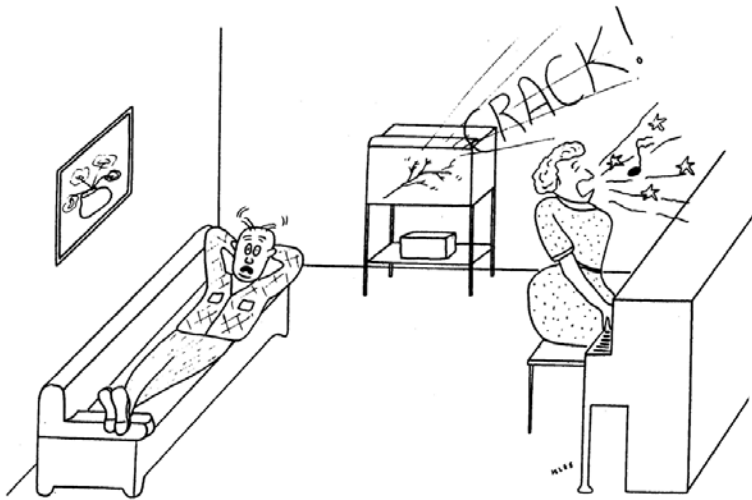
Unfortunately, we do not have a strong motivation to be neat in the aquarium hobby. It is a sorry thing to state, but most aquarists' fish collections resemble Fibber McGee's hall closet. The most noticeable eyesores are the unending, haphazard strings of electric wires and airlines. No wonder some wives take a dim view of their spouse's hobby for it is clearly Hobson's choice whether to be strangled by air lines or electrocuted by lamp cords.

In a maze of air-line tubing, it is interesting to watch an aquarist make an adjustment. Invariably, the proper air valve is located as far from the equipment it controls as possible. The valve is turned and nothing happens. In desperation, it is turned up all the way - still, nothing occurs in the tank of interest. Meanwhile, however, fish in a totally different tank are being blown out of their aquarium at the rate of one per second.

Aquarists are always indignant when, standing in a pool of water, they touch a reflector which is home-wired and subsequently receive an electric shock. The fact that electric lines have both hot and cold sides is considered trivial for the books and besides, "The lamp lights with the switch wired on either line, doesn't it?" The answer to this question is, "Yes, but it is generally conceded that the object is to have only the lamp light up and not the lamp plus the aquarist."

Fish, peculiarly enough, are designed for life in the water. They do not do nearly so well on the carpet. In nature, fish jump up out of the water to catch insects or to elude a pursuing enemy. They fully expect that when they fall, they will again fall into water. It must come as a rude shock to some fish to land on rattan, wool, wood or one of the new miracle fibers. Of course, covers would prevent such excursions but they are not foolproof, at least not in the sphere of influence of the sloppy aquarist. If glass covers are placed on the floor, on window ledges and the like, the aquarist soon learns several things: (a) falling glass retains its shape perfectly but sudden stops considerably affect dimensional stability (in other words, glass when dropped, breaks), and (b) glass is extremely strong in compression but weak in tension (in other words, a big foot produces a big hole). Part of the same problem concerns the aquarist whose covers are razor-sharp on the edges - the blood banks have overlooked a good thing here.

If there is one thing aquarists seem to collect, it is jars. There are little jars, medium-sized jars, big jars and it is a sacrilege to throw a jar out. A hobbyist, after all, never knows when he might want to transport his entire collection, fish by fish. The general impression produced is that of a pickle factory instead of a tropical fish collection. And where there are jars, there are covers. It can be shown scientifically that, although jars are subject to breakage, covers are not. Therefore, covers "multiply" like rabbits. I wouldn't hesitate to estimate that for every jar the aquarist hoards, there are hoarded 6.3 covers. In view of this, one of the most important items of equipment for today's aquarist is a bushel basket. It can be loaded with the junk that transforms a basical-



"I know catfish are scavengers
but they still won't
eat leftovers!"



ly neat hobby into a source of dissension between husband and wife, and then placed alongside the garbage pails. From there on, it is the city's problem.

Remember, for a neat hobby:

1. Conceal air-line and electric circuits or else tack them neatly out of the way.
2. Cover all your aquaria and make sure all sharp edges are polished or taped.
3. Place paraphernalia in cupboards, out of sight.
4. Don't accumulate junk!

[Author's comment: The following is another example of a title device and introductory story to grab the reader's interest. The humor is whimsy.]

WASH, BOIL AND SERVE

One of my favorite stories concerns a survey made by the U. S. Fish and Wildlife Service to learn more about the distribution of the dogfish, a small species of shark. The dogfish were captured and then released with a band that bore the message, "Notify U.S. Fish and Wildlife Service, Wash. Biol. Surv.," Some time later, the Service received the following letter from an irate housewife:

Dear Sirs,

My husband caught one of your fish and according to your directions, I washed it, boiled it and served it. It was awful. You should stop trying to fool the public with this thing. There are better ways to spend the taxpayers' money. Sincerely, - J"!

Although the story illustrates some of the difficulties in being married to a fisherman, I cannot help but note that aquarists' wives have their problems too.

Some time ago I chuckled over an article in DATZ (a German magazine) which summarized the best advice that one "tropical fish widow" could give another. The following highly paraphrased version is offered with the hope that the wives of beginning aquarists as well as those Misses contemplating marriage with persons known or suspected to be addicted to the tropical fish hobby might find useful.

1. Be optimistic and believe everything your dear man tells you about the purchases of his fish, plants, aquaria and other equipment. True, that fish he told you cost only 50c may actually have cost \$3 but remember, sooner or later he will voluntarily suggest that you buy a new hat or dress as a salve to his overburdened conscience.

2. Be resigned, contented and satisfied with the few places in your home remaining to you and the children. The living room, dining room and even the bedrooms may be cluttered with tanks and equipment, but be consoled with the thought that cooking aromas will probably force him to keep the concentration of aquaria in the kitchen down to a bare minimum.

3. Be economical in your housekeeping. In this way you will compensate for the high cost of daphnia, shrimp, etc., that, being food, must certainly come out of the household budget.

4. Be inventive and learn to use substitutes when you can't find kitchen implements that are "temporarily" being used to strain brine shrimp, sift white worms and do other necessary jobs.

5. Accustom yourself to harrowing trifles like finding worms in the refrigerator or mosquito larvae cultures in the back yard.

6. Undergo physical training and conditioning to keep your body elastic and durable. Hikes for daphnia can often last the whole day and helping to lift heavy aquariums is not for the weak-muscled.

7. Develop a rich inner life or accustom yourself to long periods of solitude while husband disappears for hours among his fish. You might culture a taste for TV or movies, or start a collection of Currier and Ives prints.

8. Study aquarium books and learn the peculiar language of the hobby. In no time at all words like Pterophyllum and Aequidens will be tripping lightly from the end of your tongue, and you will again be able to converse with your husband.



"I've finally solved my algae problem!"



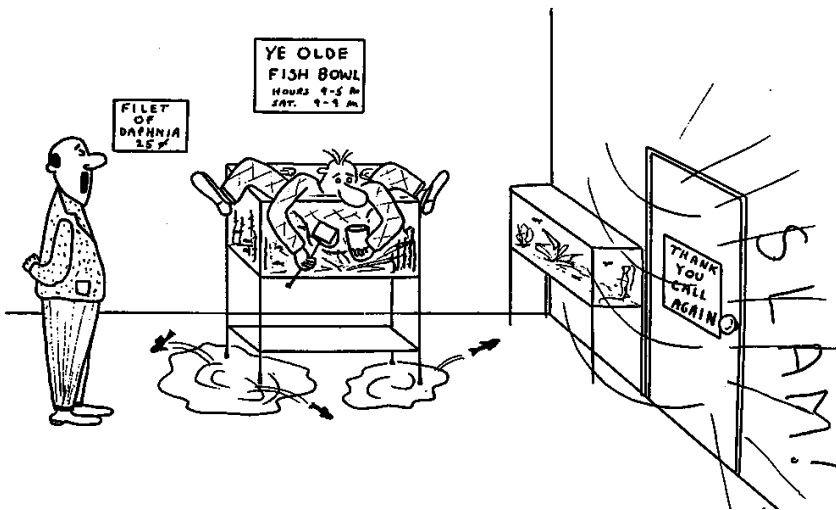
"And your lawyer says you can hold onto your cichlids but you better get rid of all your annual fishes..."



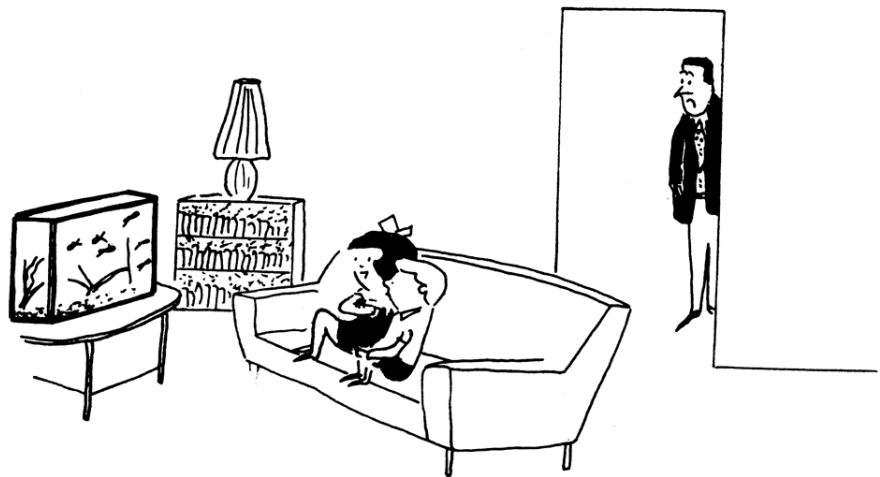
"I was caught putting snail eggs in my instant fish kits!"



"Don't blame me! You're the one who wanted to collect his own mbunas!"



"Another satisfied customer, Gromley?"



"They're called 'guppies.' Wait 'til you see that they're up to!"

9. Be deceitful and untruthful when facing aquarist visitors. When your husband blandly announces that the water in his breeding tanks is at least 6 months old when you know that they were filled only the night before, look his visitors straight in the eye and back him up. The blackmail you can practice later may not be moral but it is legal between spouses and the profits are enormous.

10. Sit down, relax and contemplate your own fish for there is a lot of wisdom in the old adage, “When you can’t beat them, join them!”

[Author’s note: The following is an excerpt from a longer article dealing with the subject. Near the end I decided to inject a little hyperbole, pooh-poohing an often-recommended course of action.]

BLACK GRAVEL

It is not necessary to discard black gravel as it can be purified. In my early days in the hobby, the advice I was given was to place the blackened gravel in a roasting pan, put it into an oven and heat for several hours. My first mistake was in listening to this advice and my second was in following it. It was not that this technique did not work but there were several things wrong with the method as follows:

1. It played hob with the gas bill.
2. The aroma emanating from this “gravel de jour” being roasted precipitated several altercations with the neighbors.
3. There was an interesting chemical reaction between the wet blackened gravel and the aluminum pan that was used. The compound formed was either gravel sulfate or pan chloride but it was never fully identified. It did leave interesting etch patterns all over the pan.
4. My wife threatened to initiate legal proceedings including separate maintenance, custody of the fish and compensation for a new pan.

[Author’s comment: The following showcases a device that I have used on a number of occasions, i.e., using pull quotes, cartoon drawings or a combination of pull quotes and cartoon drawings to attract the reader to the text. Pull quotes are short phrases that summarize important points in the text (cartoon drawings serve the same purpose), but as it is the editor who decides whether or not they are used, by themselves they are not generally an option for the writer. Cartoons or a combination of pull quotes and cartoon drawings are a different matter since editors always like to see more visuals in the publication. This article uses cartoon drawings alone to emphasize the points made.]

PREPARED FOODS FOR FISHES

Our column this month takes refuge in the ancient adage, “One picture is worth a thousand words.” There are times when a point is so obvious that it is overlooked, something that often occurs in the case of prepared fish foods, in particular. By prepared fish foods, we refer to the many commercially manufactured brands that are available to the aquarist in cans, jars, or tubes and in many varieties and sizes. With a little fun poking at our January column, “On Canned Foods for Fishes,” let’s look into the advantages of prepared foods and the disadvantages of some others.

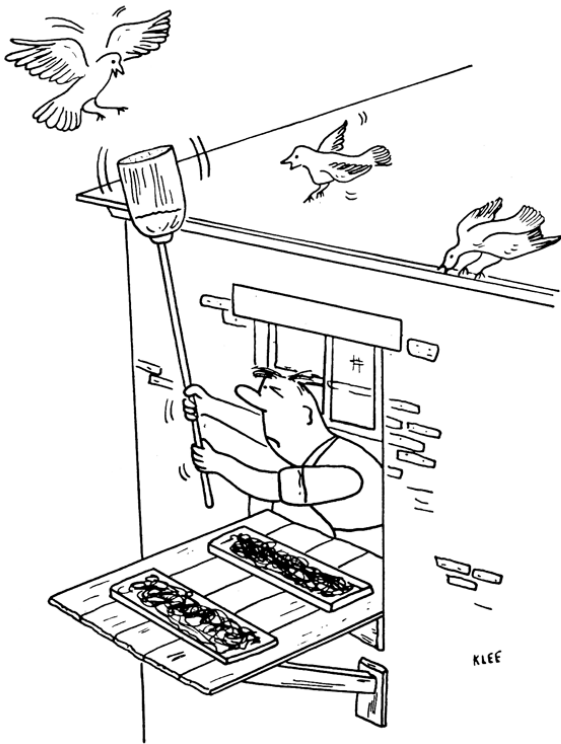
POINT 1: There is no work or messy preparation attendant to the use of prepared foods.



Yes, preparing one's own fish foods can become a little involved! There will always be aquarists who prefer their own "private stock" but they will be far out-numbered by those who prefer to keep the work involved to a minimum.

POINT 2: Prepared foods keep indefinitely without refrigeration.

Here our aquarist friend who knows that certain wet foods quickly spoil unless refrigerated or dried, is busily defending a batch of shrimp and porridge from members of the local Audubon Society. Many aquarists also feel that freezing or drying fish foods is "strictly for the birds."



POINT 3: Odors are kept to a minimum with prepared foods.

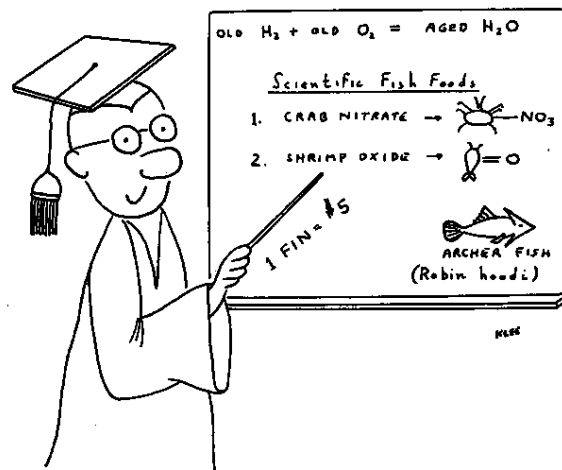
The aquarist in this cartoon doesn't know that the odor he is detecting is not from that batch of fish food he is whipping up. On some warm days, however, the aroma would be the same without the "woods pussy-cat."



POINT 4: Prepared foods make variety and balance easy.

Our last cartoon depicts the blackboard in a class on fish foods, the vitamins, and minerals needed and what makes up a balanced diet. Of course, fish food manufacturers take care of all this work for the aquarist and present balanced mixtures with elements that are calculated to benefit our tropical fishes.

As it is with almost all things, nothing is all good or all bad. There is something to be said for all types of fish foods. In any event, the beginning aquarist is on firm ground with a diet for his fishes of prepared foods interspersed with occasional feedings of canned and live foods.



[Author's comment: The title (which itself is a pun) and the introductory quote from a Dutch aquarium magazine serve to draw the reader to the following piece. The remainder is satirical as it is critical comment.]

OBJECTS D'ART

In a recent issue of a Dutch aquarium magazine, I found this little paragraph tucked away at the bottom of one page:

“In the United States, there are those who are not satisfied with the natural colors provided to the sea anemone by Nature. Now it is possible to dye them! Magnificent color combinations of these animals - blue, orange, violet, green and carmine - are available for your marine aquarium. One can even mix colors. How? Well, it appears that it is quite simple with the use of coloring materials dissolved in a little water, much in the way your wife transforms her drab sweaters into new glory. The anemone is immersed in dye solution for about 20 minutes and is reported to emerge from the process in good condition. The whole idea again illustrates the heights to which the aquarium hobby has soared in America. In this same country, one can buy plastic underwater daisies, tulips and daffodils with which to adorn the aquarium. Such rubbish is even found in exhibition aquaria! And we grumble about the show rules over here...”

My first reaction to this paragraph was that of mild irritation. Further reflection, however, convinced me that the statement was to a large extent, justified and my pique should have been directed instead to my fellow hobbyists here in America. Perhaps our Dutch friends ‘really were being kind as no mention was made of burping clams, belching hippopotami, and other underwater abominations that are unfortunately so easily purchased almost anywhere.

A while back, I asked several of my dealer friends why they stocked such trash. All of them had the same answer...”If they can't buy it here, they will just get it somewhere else.” In this, I sympathize

with the dealers. None of them really have any use for this junk but there is a living to consider. They do their level best to convince people that their money would be better spent on filters, pumps, plants and (heavens forbid!) on fish.

That these “objects d’art” are sold for use in aquaria is a bit of an anomaly in itself, for American firms manufacture the finest aquarium equipment in the world. Our pumps, tanks and filters are the best (European aquarists are still fiddling with painted-frame aquaria; we have stainless steel, epoxy-treated natural wood and sturdy plastic framed aquaria). Yet, we sort of ruin the picture by the mere presence of these other silly items. It is even rumored that one manufacturer is coming out with plastic “ick” spots, for use in healthy tanks! To be sure, I have seen some plastic plants which were authentic reproductions of true underwater plants that might find application under special circumstances... in tanks containing plant-eating fishes such as *Metynnus*, for instance. But to stretch things to include daffodils offends both aquarists and daffodil fanciers alike.

The beginner most assuredly can purchase plastic plants, fish and gravel with never a thought as to temperature, feeding or fish diseases. Of course, since plastic water is not yet available, one does have to “top up” the tank from time to time. This, however, is not a hobby nor are its perpetrators hobbyists. There is much fun to be had in the aquarium fish hobby but this is not one of its routes.

The one thing that really bothers me about the Dutch comment, concerns the phrase, “again illustrates the heights to which the aquarium hobby has soared in America.” The Dutch have the hobbyist sadly confused with the “goldfish in a bowl” type of piscatorial dilettante - but then it appears that we also have our terms confused. Time and time again, we hear that our hobby is one of the largest in the nation, boasting about 10,000,000 participants. This is sheer nonsense! One swallow doesn't make a summer and neither does one aquarium make a hobbyist, for if this was a valid criterion, then every person owning a dog would automatically become a dog fancier or, as the vernacular goes, “in the dog game.”

Continued on page 40.

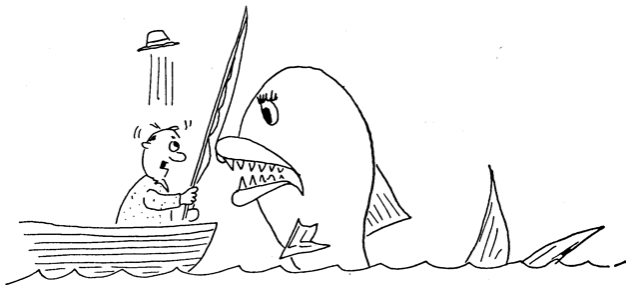
[Author's comment: In an article on the naming of fishes, "WHAT'S IN A NAME?", I used both pull quotes and cartoon drawings to illustrate my main points. The article is performe very long but the illustrations from the article are shown on these two pages.]



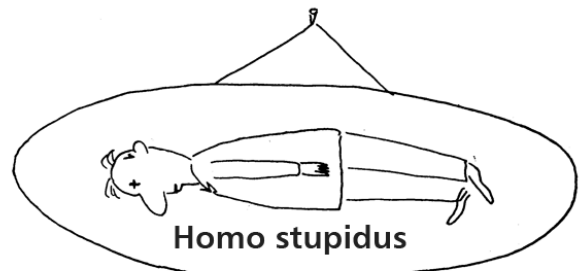
"The family, Poeciliidae, for example, tells us to expect livebearers..."



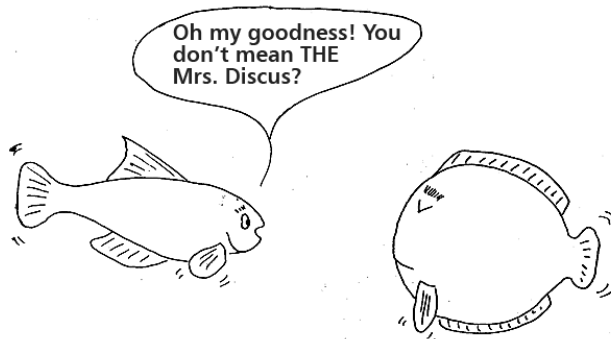
The scientific names of fishes are derived, in the main, from Latin or Greek words..."



"There are many errors of this sort to be corrected in ichthyology..."



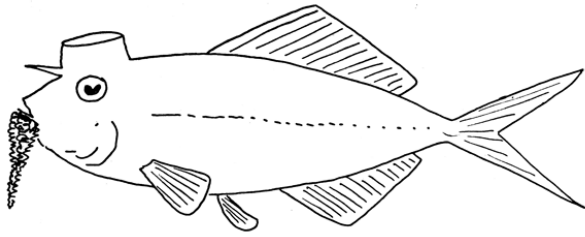
Don't try to memorize the name, son, just study the roots!



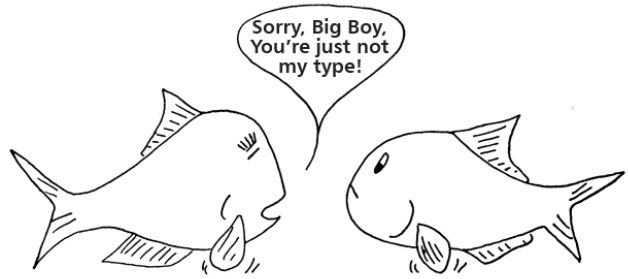
"Many Greek and Latin roots are used over and over again..."

"The following is frequently heard..."

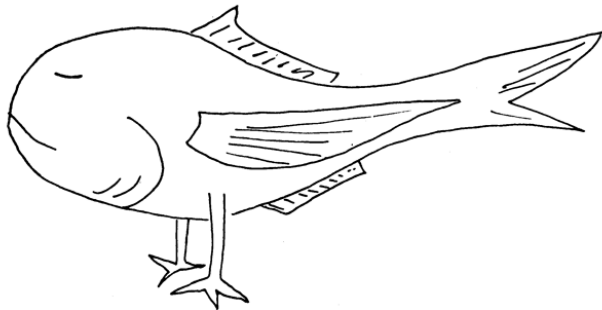
Hyphessobrycon castroi



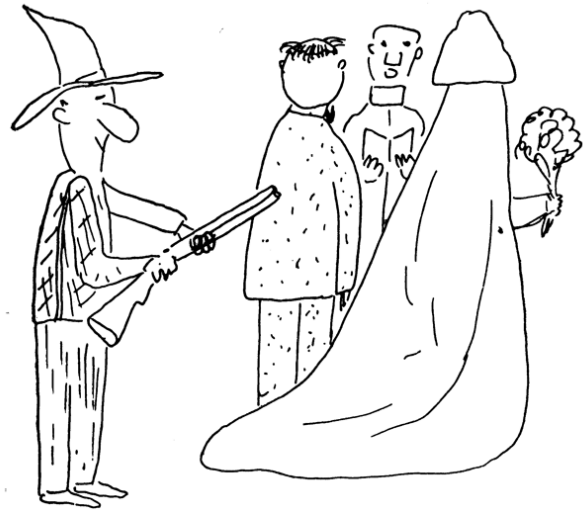
"It frequently occurs that a fish is named after a person..."



"The type for a species, for example, is an individual fish..."



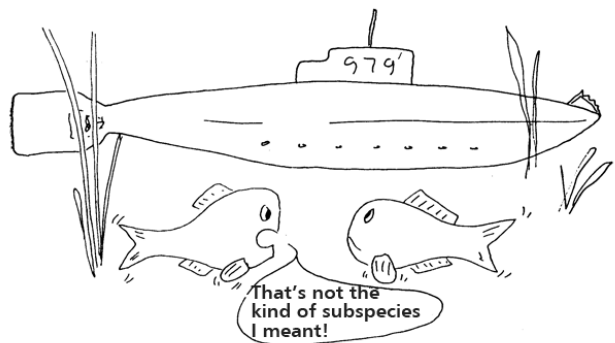
? "At one time, it was thought that Barbus was used... for the name of a bird..."



"Name changes usually are cause for bitter complaints by aquarists..."



"Proposals have been made to add to these seven basic levels..."



"The only category below the species... is the subspecies..."

The relationship between an aquarist and one who slowly murders a trio of 3-inch goldfish in a pint bowl is no deeper than that between an ostrich egg and a weather balloon. If there are 10,000,000 “hobbyists” in this country, then the Greater Cincinnati area should have approximately 55,000 of them. Even if I distorted my definition of “hobbyist” beyond all proportion, I have only been able to find a thousand or so of them. Perhaps the other 50 some odd thousand “hobbyists” are out looking for daphnia in Crosley Stadium; in any event, they sure are a secretive bunch.

I trust that by this time, our friends overseas realize the true position and objectives of aquarium hobbyists in America and that our own citizens do likewise.

[Author’s comment: The following could have been more of a biting satirical piece, but I elected to soften the criticism with a bit of humor.]

ON HUMAN DYNAMOS

There comes a time in almost every aquarist’s life when he feels the need to exchange experience with kindred souls, the organization providing such an opportunity being the aquarium society. It may be true that the beginner has few experiences to exchange, but both he and the society will benefit by mutual association. The new aquarist will gain a wealth of information from the society and the society will gain new blood and fresh ideas.

Unfortunately, neither of these will come about if society membership is taken in the wrong manner. Participation in the activities of an aquarium society can take the form of two extremes. The first is the “bump-on-the-log” type of member (the type which characterizes the usual beginner) who attends but is silent during the meetings and never volunteers or offers to help out on projects whatsoever. Indeed, some of these members are so quiet that a pulse count is often the only way to ascertain if they are alive. It may be necessary to keep a small mirror handy to hold in front of the “bump-on-the-log” type member’s face. If the mirror fogs, then the member

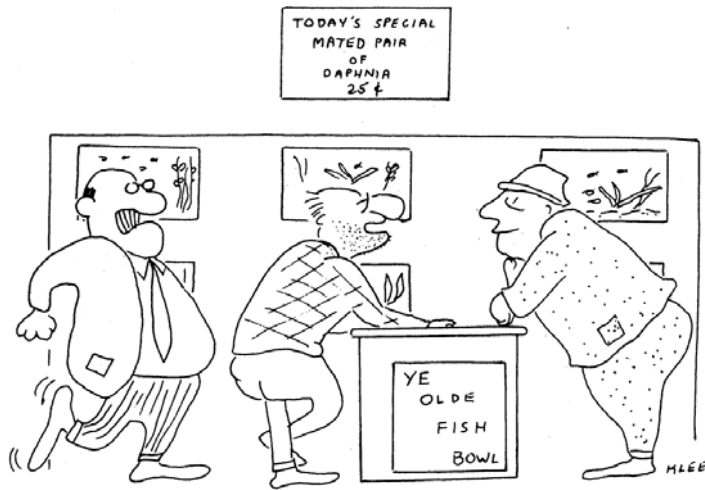
is still breathing and is counted in the quorum. If the mirror does not fog, it is the Membership Committee chairman’s responsibility to notify the next of kin. Obviously, this type of member is not getting what he should out of the society and vice versa.

On the other hand, we have the “human dynamo” type of member. This earth-bound rocket-of-a-member has his left arm permanently raised over his head so as to be always volunteering for this committee or that project. A typical schedule for the “human dynamo” type of member would be: Chairman of the Special Committee to Place Aquaria in Buses, member of the Committee on Revising Revisions to the By-Laws, in charge of the Kissing Booth at the Annual Fish Show and currently preparing a 45 minute talk on “Constructing Straw Targets for Archer Fishes.” These are worthwhile activities, to be sure, but the “human dynamo” soon burns out. As a result, this type of member has never really had time to enjoy his hobby and the society ultimately loses a good man. The best course then is moderation.

[Author’s comment: The following consists strictly of wordplay incorporating one pun after the other. Of all the entries in this book, this is the one I like the best. De gustibus non est disputandum!]

A SHORT HISTORICALS OF THE AQUARIUM HOBBY

The earliest record of fishkeeping is found in Egypt where, along with Mesopotamian graffiti and Hittite expletives, pictures of well-known African aquarium fishes are found carved on the sides of tombs. The instructions for keeping these fishes were written in a script based upon aquatic plants and known as Egyptian hyacinths. These earliest of all fish keepers lived in the Sahara desert, so although there was little water to be had, there was plenty of sand to cover the bottom, the middle, and the top thirds of their tanks.



"I need a boost in this business!"



"Now this, Madam, is the latest in aquarium cleaning equipment!"



"Darling, I accidentally mixed the virgin females with the young male guppies today. I hope you're not angry..."

There was, in fact, only enough water to allow rubbing each fish once a month with a damp rag. Fish-keeping at the time was fraught with many problems; the tombs leaked, it was hard to see through the marble sides, and the climate was such that the Egyptian aquarists had to live elsewhere, requiring a long commute from Nubia just to feed their fish.

The next record of the aquarium hobby is found in ancient Greece, where Socrates devised the first practical method for filtration, which involved pouring aquarium water through discarded hosiery to remove food particles. This was known as the "Socratic Method." The members of his combined aquarium society and school of philosophy were called "Tetrahedonists," and they practiced their oratory by tossing Barbs at one another. Socrates' specialty was Discus, but his wife kept throwing them away.

Next on the scene were the Romans. The first killifish society was established by the brothers, Rivulus and Remiss, the latter so named because he forgot to put covers on the tanks and the Rivulus jumped out. Later, Neapolitan aquarists combined their hobby with their love of cooking and made famous such dishes as Brine Shrimp Scampi and Neon Tetrazzini. These early Italian aquarists were in the habit of drinking much vino when they were building their aquaria and their tanks invariably, especially those built in Pisa, leaned to one side.

A British publican, Fillup Gosh, actually invented the first straight-sided tank by first devising a rectangular commode for use under a Queen-size bed. The Queen, however, found the right-angled corners too uncomfortable to use so Gosh decided to offer his containers to aquarists. They were sold with a guarantee known as a "30-day Warrington." (It has sometimes been argued that Nathaniel Ward invented the aquarium; however, his was a sad case and he took a job with the British Civil Service and became a Ward of the State.) The hobby in England at that time was a favorite of female aquarists but was constrained by the strict moral codes of the day. Victorian ladies could not, for example, raise either their skirts or the water levels in their tanks without undergoing social opprobrium. Male aquarists, on the

other hand, met nightly in local pubs and got tanked. After Gosh's death, his career suffered a dramatic decline.

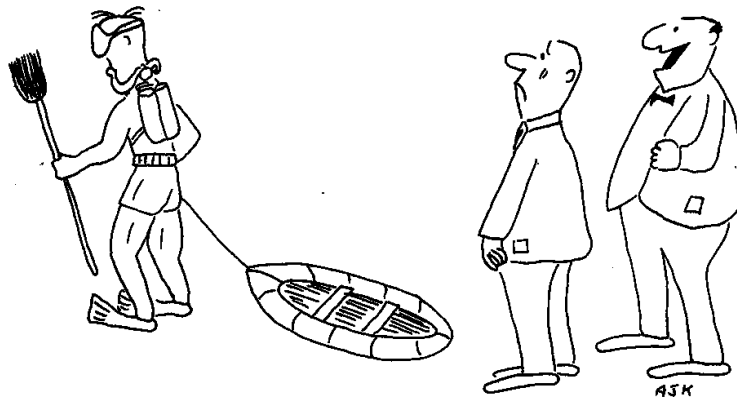
Although Gutenberg had long since invented movable type and the Bible, the world was now entering a time of great inventions and discoveries. With the advent of the Industrial Revolution, people stopped reproducing by hand and started reproducing by machine. Cyrus McCormick, for example, invented the McCormick reaper, which did the work of a hundred men. Louis Pasteur discovered a cure for rabbits and, at the American Museum in New York City, Barnum displayed the famous musical insect known as the humbug and also the first Beleaguered whale. Barnum was a very rich man and could afford a Butler. William Damon, who also worked for Barnum, circumcised the world, looking for new species of marine fishes for the Museum.

The greatest of the early American aquarists was Hugo Mullet, who was born in Germany in 1846, supposedly on his birthday. He had to leave Germany in a hurry when he was found defacing the currency, an offense known as "Deutschmarking." Mullet settled in Cincinnati and bred goldfish, a corruption of the German word for the then very expensive "geltfish," itself derived from the Hadassic plankton feeder, "geltfilterfish." Unfortunately, Mullet could not spell Cincinnati properly, often leaving out one of the n's, a condition known as "enervation." He was therefore forced to move to Brooklyn where correct pronunciation was unheard of. Mullet was a snappy dresser and when he strolled by at the Packer Collegiate Institute where he was employed as an aquatic cosmetologist, the girls would say, "There goes that striped Mullet!"

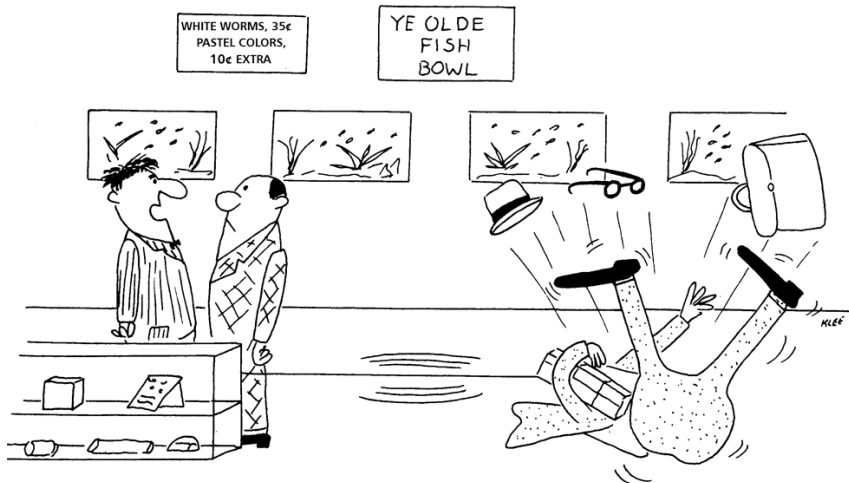
One of our first aquarium club organizers was Phosgene Smith who founded the New York Aquarium Society. Smith had a very poor understanding of geography, so the club actually met in New Jersey and held its monthly bowl shows in Omaha, Nebraska. He had a hard time on the road when checking into motels, as no one would believe a name like "Smith" on the register. What made it all the more difficult was his insistence on asking for three-hour rates. In any event, his book, *The Home Aquarium*. Wherever



"I'll see your discus and raise you 12 angelfish!"



"He sure puts on a pretty good show on having the biggest tank in town!"



"The next time you sell a reflector, unplug it!"

It Is Located,” set down some of the basic principles of fishkeeping that aquarists follow today, such as wearing rubber-soled shoes when transferring electric eels and eschewing pianos as aquarium stands regardless of the number of tanks they will hold. Smith, by the way, loved playing with his instruments and kept a spinster in his attic just for this purpose.

A famous aquarist of the day was Richard Dawn, who imported many of our most popular aquarium fishes. Two of his many catfish introductions included the Corydormouse, named for its prominent whiskers, and Lawncareria, prized for its ability to keep aquatic grasses under control. Other introductions included the unfortunate Hapless Chromis, the singing catfish *Doras dayi*, the predatory Belly Knee Sox, a number of *Labeos* whose names were on everyone’s lips, and both *Hemigramma* and *Hemigrampa* species. Dawn was a very energetic aquarist, most likely stemming from his habit of eating overactivated charcoal. Dawn died in 1929 and is still dead.

One of the most influential pre-World War II aquarists was William T. Inners. Inners was half English, half Irish, and half Scotch, but he mostly drank the latter. Inners lived in Philadelphia, the home of Benjamin Franklin who in the early days of the American hobby discovered electricity by rubbing together two electric eels, one positive the other negative. (It is mistakenly thought that Franklin invented electricity “while flying a kite” but this was a transcription error, and as it is well known that he liked his ale, it should have read, “while high as a kite.”) Inners was a printer, often typesetting most of the well-known aquarists of his day. The Neon tetra, *Hyphenated Innersi*, is named after him. Inners was one of the earliest photographers of tropical fish, his most famous being of a Glue Bularis, which, unfortunately, stuck to his lens. He published a very popular magazine called “The Aquarium,” but it was hard to read because of all the watermarks. Inners was also a prolific writer, his most famous book being “Erotic Aquarium Fishes,” containing innovative ideas such as mentholated breath mints for Firemouth cichlids, Docksiders for Walking catfish, tarnish removers for Silver Dollars, turn signals for Head-and-Tail-Light tetras housed in very short tanks, tiny pliers for re-

moving the thorns from Rosy Barbs, and small waterproof microphones for Talking Catfish wanting to break into show business. After his death in 1969, however, he wrote very little.

[Author’s comment: The following is a parody. It doesn’t teach, it doesn’t explain. It’s there just because it tickled my fancy.]

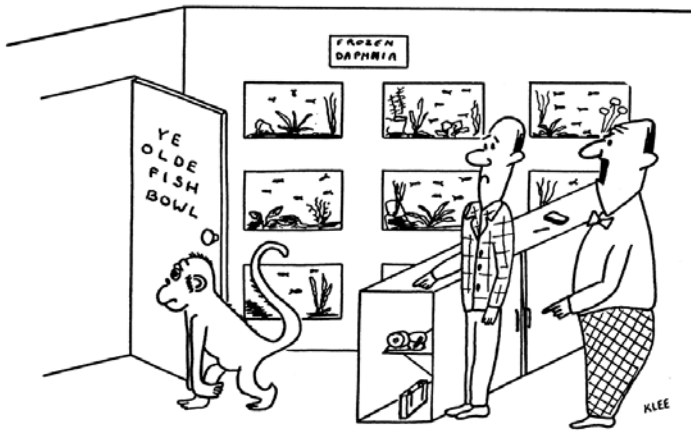
THE ORIGIN OF THE PLASTIC BAG IN THE AQUARIUM HOBBY

The following is the little-known story of how the plastic bag was introduced into the aquarium hobby.

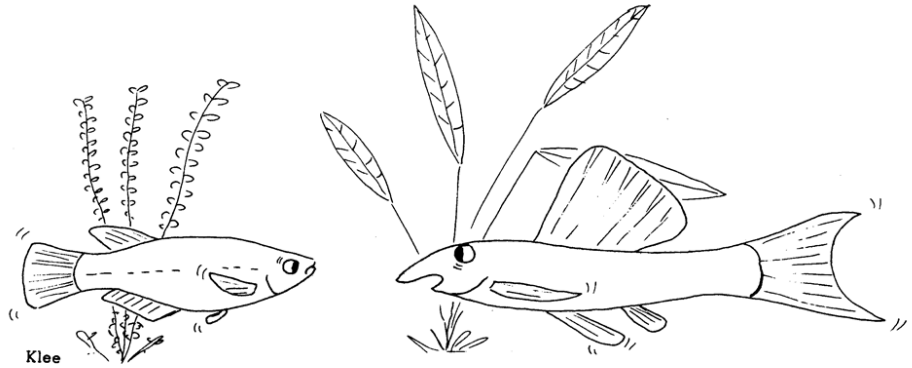
In the late 1940’s a fellow by the name of Algernon Fiddle was getting married and picked up his Tuxedo at the rental store. On his way home he stopped off at a friend’s house where he saw some broadtail guppies his friend had recently developed. Offered a number of pairs for the taking, the problem was that there was no suitable container available. The quick-thinking Fiddle took the plastic garment bag off his Tuxedo and tied off the slit end provided for the coat hanger hook. Voila! The transportation problem was solved and Fiddle made it home with his guppies intact, although the same could not be said for his Tuxedo since his friend kept white angora cats and, without the plastic garment bag for protection, the Tux was coated with white cat hair giving Algernon the appearance of a moldy prune at his wedding. (His normally wrinkled physiognomy unfortunately added to the effect.)

Suffice to say that the honeymoon was not without some sharp words from the bride.

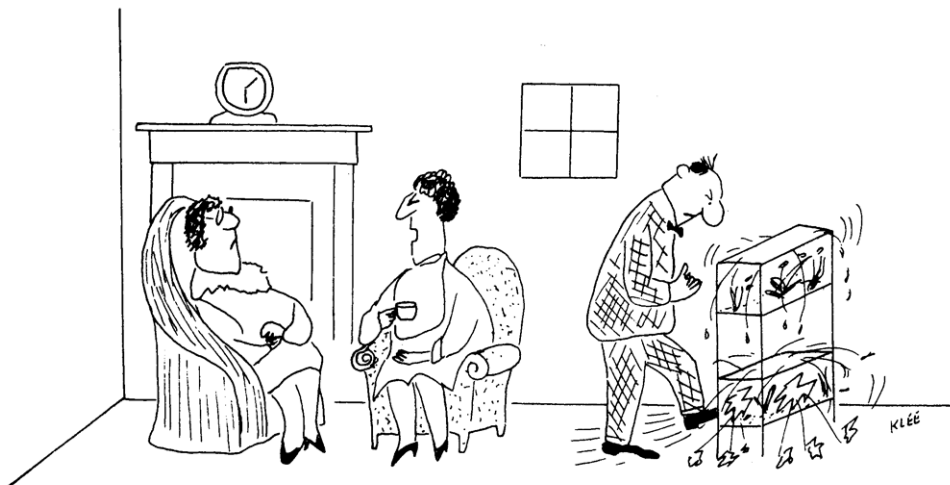
The idea was quickly taken up by a local pet shop who ordered a thousand bags from the garment bag supplier, the only stipulation being that the bags be only 12 inches long. The supplier at first thought that the bags were destined for a re-make of the Wizard of Oz but that misunderstanding was soon cleared up. Improvements soon followed, notably the removal of the legend, “Dry Clean Only” from the bag



"He keeps coming in asking for banana plants!"



"I know what I am... I just can't pronounce it!"



"If things get much worse at the office, we may have to drop out of the hobby!"

since customers who dutifully followed the instruction found that their fish shrank significantly and were hard to see.

Algernon Fiddle was an important figure in the history of the hobby. He was the first to invent a form of the undergravel filter, although he carelessly omitted the holes in the tubes that ran under the gravel so the filter didn't do very much. He also devised the very first frameless glass aquarium but the Elmer's glue he used made for a very short tank life span (a matter of a few seconds, actually). Sadly, Fiddle came to an untimely end when, standing in his bare feet in a puddle on the floor, he attempted to rearrange the inside filter in a tank containing his pet electric eel.

Fiddle's experiments with electric eels were legendary, by the way, as he ran all of his heaters, pumps, and lighting fixtures off that single tank although there were quite a lot of pyrotechnics in his fish room before he learned to use a step-down transformer to get the voltage nearer to 110. The first time Fiddle connected an incandescent lamp to the eel tank it was so bright that a passing steamer thought it was the Barnegat lighthouse and it ran aground in Fiddle's front yard with a cargo of Vietnamese pot-belly pigs.

[Author's comment: Humor need not always be found in prose; poetry works just as well. This is my first example. Alan Fletcher asked if I might come up with a verse re the *Hypessobrycon cardinalis* - *Cheirodon axelrodi* dispute (see the history of this dispute in the Introduction), so blame this one on him!]

AN ODE TO NARCISSUS

Two men of awesome credentials,
Described a new fish with potentials.
Secure in their quest,
They gave it their best,
Sketching the fish with essentials.

It was sent to a very good journal,

And reviewed by the critics external.
It got rave reviews,
Which wasn't bad news,
From colleagues they viewed as fraternal.

But entering then on the scene,
Was a man of repute most obscene.
When he looked in the glass,
All he saw was an ass,
Whose rear end was exactly his mien.

He published a series of pages,
Used solely to line one's bird cages.
By fiddling with dates,
He challenged the Fates,
And acted the schmuck most outrageous.

The moral of the story is just this,
And I hope you'll not take it amiss,
If you act like a God,
And your name rhymes with Rod,
All you'll get on the stage is a hiss.

[Author's comment: This is a second example of humor using poetry. My Muse here clearly was Ogden Nash.]

AN ODE TO THE AQUARIUM HOBBY

Aquarists worship aged water,
More than laymen think they oughter.
We keep a piscatory pet,
You cannot hug, and not get wet.

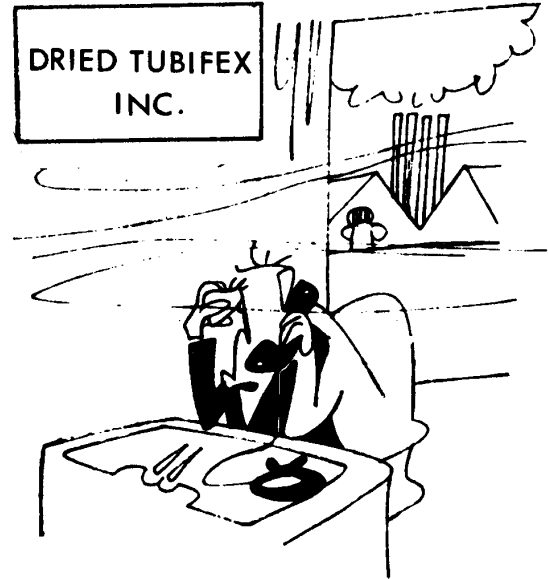
We slip into a cosmic coma,
Breeding barbs and *Cichlasoma*.
We pamper our *Plecostomus*.
That really is preposterous.

We test our tanks with equanimity,
For pH, hardness, alkalinity.
When nitrite levels run amok,
We panic, feeling like a schmuck.

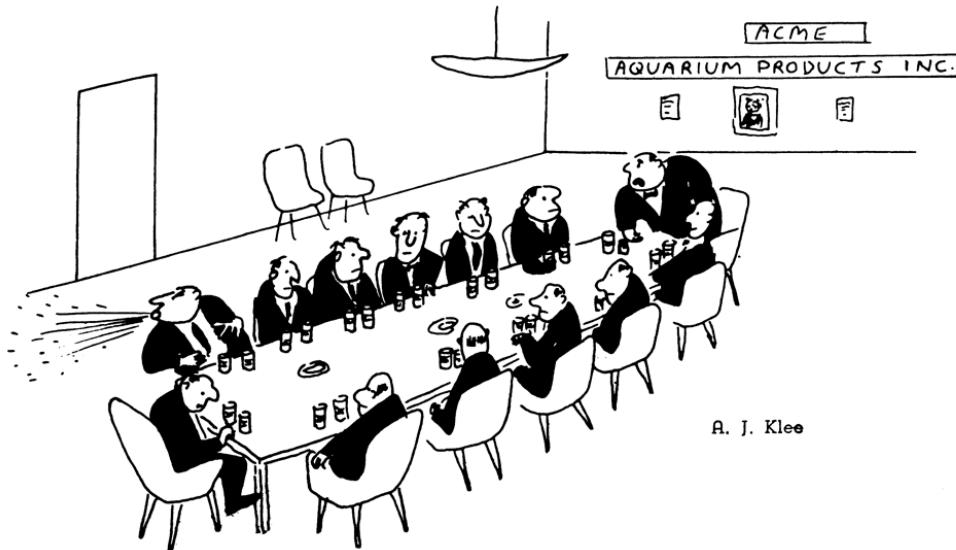
And even if we can't pronounce it,



"I know fish are cheaper in Hong Kong, Henry, but don't you think this is carrying things a bit too far?"



"Business is so good I can hardly stand it!"



A. J. Klee

"I gather that you don't think we've quite got the right flavor for our new fish food, Gromley?"

Latin, Greek, we won't renounce it.
Appearing like an ignoramus,
Mangling words like *Hemigrammus*.

With heaters, filters, pumps for air,
Electric bills that draw despair,
We buy our gravel by the ton,
Our rooms with tubing overrun.

In spite of this we will persist,
Another tank we can't resist.
I admit, we get ecstatic,
Over plumbing that's aquatic.

[Author's comment: The preceding and the following were both presented before the Northeast Council Of Aquarium Societies Convention in 2006 where I shared the dais with Dr. Stan Weitzman, Rosario LaCorte, Gene Lucas, Alan Fletcher and Earl Schneider. The session was billed as "An Evening with the Aquarium Legends." My presentation was a combination of parody, wordplay and just plain jokes. I should mention that, during my presentation, although no tomatoes were thrown there were a lot of groans!]

A PRESENTATION BEFORE THE NORTHEAST COUNCIL OF AQUARIUM SOCIETIES

Now when I was invited to participate in what Ray Lucas termed a "Night with the Legends," I thought it would be a good idea to look up the definition of the word since my previous understanding was that it was simply an explanatory caption to some sort of illustration. One dictionary defined a legend as an "unverified personage of earlier times." Now this was disconcerting since "unverified" means "lacking substantiation" so apparently - as a Legend - I'm in such fabled company as Ichabod Crane, Peter Pan, and Rip van Winkle. Upon further reflection, however, I came to the con-

clusion that this evening really was all about earlier times. I can't deny, of course, that I have been around for a long while. Of my almost 600 aquarium articles, for example, the first was published over 55 years ago. Incidentally, although I have written a lot, I don't claim that my work is of any particular merit. I once asked an editor if I should put more fire into my articles and he replied, "No, just the opposite."

The biggest disadvantage of old age, of course, is that you can't outgrow it. I'm at the stage now where my blood type has been discontinued, and when I order a three-minute egg, they ask for the money up front. Among various parts of the anatomy, alas the memory goes, too; but on the positive side, that means that I can hide my own Easter eggs.

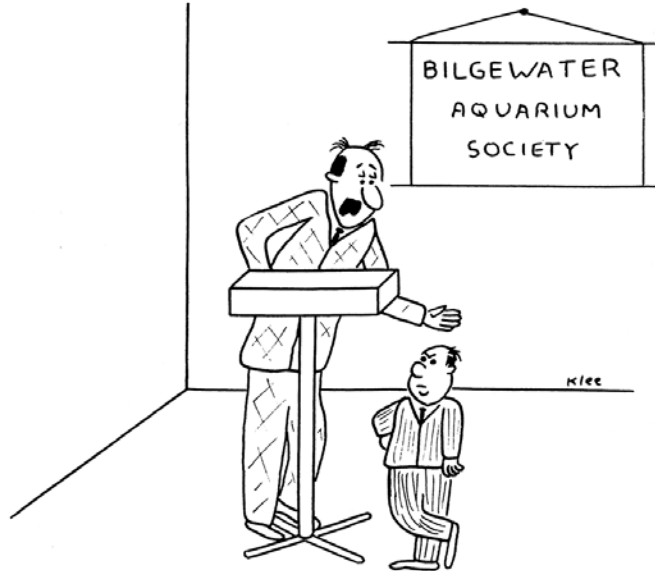
This evening prompted a personal trip down through memory lane in which I tried to identify the most significant changes I've seen over my years in the aquarium hobby. There were, of course, changes that affected only specialized areas, such as the introduction of the nylon spawning mop. This, by the way, marked the first appearance in the aquarium hobby of plastic plants, so you have the killifish fanciers to thank for this mixed blessing. Even today, there's more nylon in the average killifish tank than there is in a drawer full of women's hosiery.

Another example of a specialized area includes the hi-tech equipment developed for use in the saltwater side of the hobby. Today's brine-loving aquarist has to be a combination of chemist, engineer, and plumber, making decisions involving such complicated processes as, reverse osmosis, deionization, calcium reaction, and ozone generation. And, since this stuff is not cheap, the saltwater hobbyist must be well-heeled. I have a good friend who keeps marine fish, and as you might expect, he even has a telephone in his limousine. Unfortunately, every time it rings, he has to run down to the garage to answer it.

Some changes were more evolutionary than revolutionary. Air pumps, filtration, and lighting come to mind. When I got into the hobby, the only thing I had to know about aquarium lighting was where the switch was located. Nowadays, in addition to incan-



"Another complaint on our No. 407-1/2 filter!"



"... and our next speaker will talk about dwarf gouramies!"



"For Heaven's sake, Lillian, you're not going to send a card to the damned fish?"

descent and fluorescent lamps, there are metal halide lamps, high pressure sodium lamps, sodium lamps that run on halide ballasts, halide lamps that run on sodium ballasts, actinic lights, LED lights, and a choice of spectra ranging from 4200 to 20,000 degrees Kelvin. Finding the light switch is the least of today's aquarium lighting problems. As Mark Twain once said, "researchers have already cast much darkness on this subject and, if they continue their investigations, we shall soon know nothing at all about it."

Medication is another example. In the 1950s we had salt, methylene blue, acriflavine, potassium permanganate, mercurochrome, and copper sulfate. Today we have sulfadimidine, trimethoprim, monocycline, nitrofurazone, and metronidazole, to name but a few. The only thing missing from today's medications is a guide to their pronunciation. Speaking of medical problems, I once accidentally dropped some vinegar into a tank of angelfish. It got into their ears and they all developed pickled hearing.

To the list of other specialized first appearances, we can add the introduction of the African cichlids that had aquarists scrambling to their atlases to find the location of the Rift Lakes, and to their dictionaries for the pronunciation of words that began with two unlikely consonants, such as Mbuna, Nkata and Umhlanga. The question soon arose as to which side of a Rift Lake cichlid had the most scales and, after an extensive investigation, aquarists learned that it was the outside.

Also notable was the appearance of color photographs in aquarium magazines. For the first time, aquarists learned that if a red betta and a brown betta spawn on a deserted island, their offspring would be marooned. Unfortunately, present-day publications have gotten so large, and editors so enamored of blowing up portions of piscatorial anatomy, that one invites cardiac arrest upon opening a fish magazine, and suddenly finding a six-inch diameter eye staring back at you. This wouldn't be half bad, but livebearer gonopodia are magnified as well, generating an acute sense of inadequacy in the average male reader.

The proliferation of aquarium foods is also bewildering.

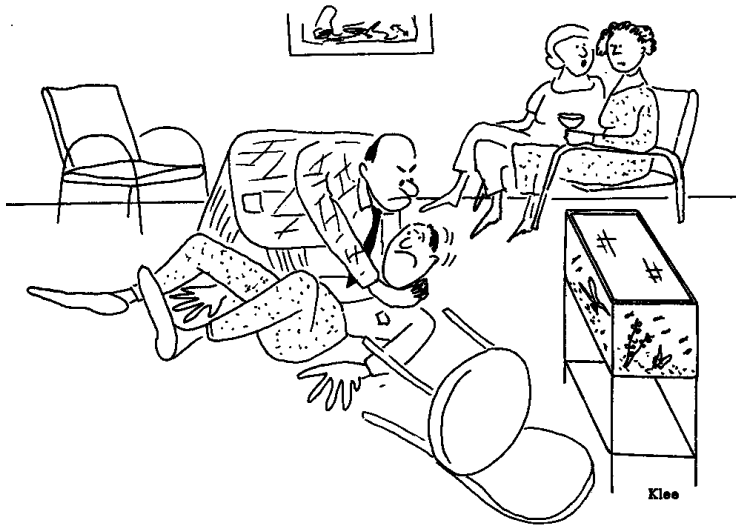
In my day, for example, in dry foods there were just two alternatives: those for goldfish and those for tropical fish. Over time, however, aquatic alimentation has become more specialized as we learn that food is an important part of a balanced diet. Hikari, for example, makes five types of dry foods for Cichlids alone: Cichlid Gold, Cichlid Excel, Cichlid Bio-gold Plus, Cichlid Staple, and Cichlid Complete, suggesting that these fish are really picky eaters.

Taking a cue from General Foods and Kellogg's, I expect the next move will be to develop such items as: *Cichlasoma* Breakfast Blend, Mouthbrooder Munchy Morsels, and *Hemichromis* Teatime Treats. I have a friend, by the way, who feeds his cichlids M and M's, discarding all the brown ones because he claims his fish are allergic to chocolate.

Other changes were genuinely revolutionary, such as the creation of the first truly national specialty groups within the hobby, such as the American Killifish Association, the American Cichlid Association, the American Livebearer Association, and, in the case of goldfish, the Gilt by Association. Not to be overlooked is the introduction of silicone adhesives in the construction of aquaria. Yesterday's hobby was held together with spot welding; today's hobby is held together with glue.

One significant change that has never been acknowledged or even recognized by the aquarium hobby involves glass. In 1950, aquariums were constructed of two types of glass: drawn sheet and polished plate, neither of which is made in this country anymore. This change began in the 1960s when float glass was introduced, and now all glass in aquariums is of this material. It's fabricated by floating a sheet of glass onto a layer of molten tin, hence its name. This makes it possible to back up the claim that now everything important in the aquarium floats: the fish, the water, and even the glass.

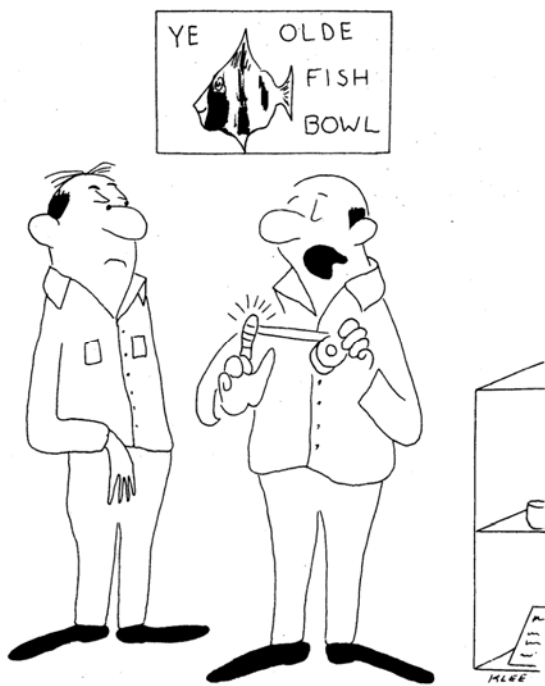
Without doubt, however, the greatest effect on the hobby since the end of World War II has been the emergence of the Internet. Not only has the exchange of information been facilitated through both web sites



"Don't you think this discussion of how to raise brine shrimp has gone a bit too far?"



"There are other ways to register your complaints about the judging, Smedley!"



"Why yes, I just happen to have a piranha I can let you have cheap!"

and e-mail, it is also instantaneous, far-reaching, and comprehensive. Information overload is now added to the list of major aquarium diseases.

Unfortunately, misinformation now also arrives at the speed of light, and one has to be on guard to avoid the road kill on the Information Superhighway. It is not true, for example, that Cardinal tetras are the favorite of the Vatican, that fish can't sing because they lack musical scales, that you can lower the pH of a tank by adding Lemon Tetras, that piranhas don't eat clown loaches because they taste funny, or when scales fall off a fish it is merely a form of aquatic dan-druff.

In any area, however, there are always old-timers like myself who bemoan the "good old days," although nothing is more responsible for the good old days than a bad memory. Those of us who were in the hobby just after the end of World War II remember the exhilaration experienced with every new fish that was introduced. Today, one is spoiled by the abundance of species on hand. In the late 1940s, for example, there were about two dozen species of killies available to aquarists. Today, this number is more like two hundred.

It's like the young man - an avid aquarist - who finds an old bottle on the beach, and when he gets it home he pulls out the cork and out pops a genie. The genie says, "I thank you for freeing me from the bottle. In return, I'll grant you two wishes."

"Great!" says the aquarist, "I always dreamed of this and I know exactly what I want. " First, I want a pair of every aquarium fish known to man, and enough tanks to hold them all." Poof! There's a flash of light, and the aquariums and the fish appear.

"For my second wish," the young man says, "I want to be irresistible to every female aquarist." Poof! There's a flash of light and he turns into a box of chocolates.

One phenomenon that has many aquarists desperately seeking a return to the good old days is the never-ending splitting of scientific names where, for example, a single catfish genus is broken up into a dozen

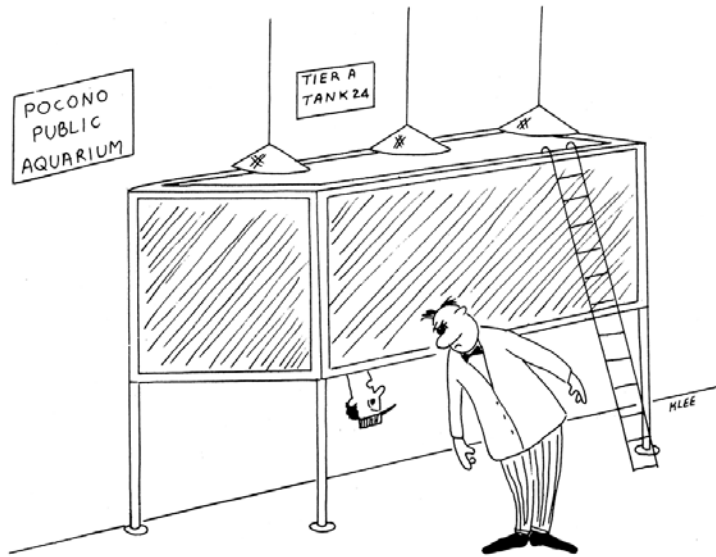
others, based upon the length of their whiskers or whether their markings suggest a new interpretation of the Da Vinci code. Splitting hairs, splitting infinitives, and splitting headaches is one thing; splitting *Tilapia* into 38 genera is quite another. Even Caesar divided all of Gaul into only three parts.

In the days gone by, one entered a state of euphoria replacing a piece of glass in an old framed aquarium, the smell of the Pecora cement as it was pressed into the edges acting as a pheromone, the fish fanatic's aphrodisiac of the time. Tempers were moderated by developing colorful language when dealing with those pathetic vibrating air pumps of the day that put out about as much air as a Guinea pig with asthma, the two-dollar chill breaker that was as useful as a screen door on a submarine, or the thermostat of a cheap heater that stuck at a toasty 200 degrees, resulting in a fish fry that rivaled the best that Rosario LaCorte's church had to offer on a Friday evening.

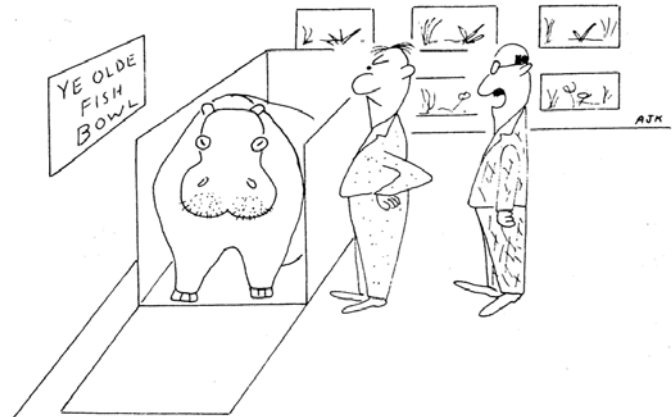
There was a feeling of intoxication - usually brought on by the inhalation of Freon - in dismantling old refrigerators for their air compressors, and for their 100-gallon liners that served as inexpensive tanks, especially beloved by those cichlid fanciers who defined any fish less than six inches in length as "infusoria with fins."

There was also the thrill of placing one's health in jeopardy by collecting tubifex. Since their habitats and sewage outlets were synonymous, collecting these worms was tantamount to gargling with water from the Ganges River, and the prudent aquarist would insure that all of his shots were kept up to date, including those for bilharzia, encephalitis, and dengue fever. One of my friends decided that harvesting wild tubifex was so dangerous that for live food, he bought an ant farm. His only problem was in finding a tractor that small.

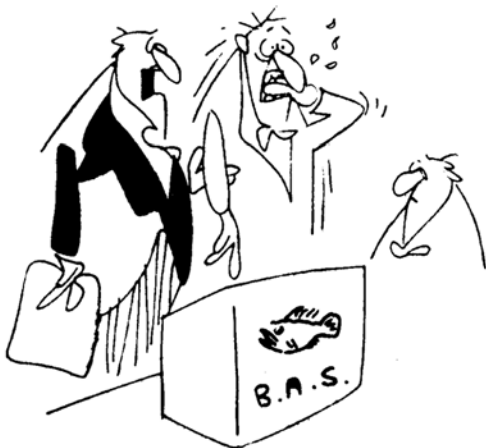
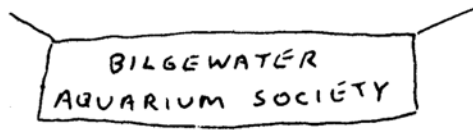
However, there is one good thing that increases as time passes by, and that's the number of friends one makes in this hobby. For my own part, I'm proud to include among them, members of this panel and also many of you in this audience. In this hobby, therefore, I count my age with friends, not with years.



"I think I found the leak, Chief!"



"I warned you about those !@#%\$! scientific names! The next time you order seahorses, don't ask for Hippocampus!"



"And now we hear from our speaker who has just returned from a collecting trip in Viet Nam."

I appreciate the honor you have bestowed on me and my colleagues tonight. To quote Voltaire: "Appreciation is a wonderful thing. It makes what is excellent in others belong to us as well." Thank you for inviting us here this evening.

[Author's comment: Like the "A SHORT HISTORICAL OF THE AQUARIUM HOBBY" article, the following also consisted of wordplay incorporating one pun after the other. This one, however, was illustrated with humorous illustrations.]

THE ORIGINS OF THE CICHLID HOBBY

The story starts in the year 1853 in the small Bavarian town of Buchstahude, Germany, when Fräulein Elise Eingemachte, an Editor's assistant who was carrying a box of umlauts to the printer, bumped into Emil Buntbarsche, a plumber doing maintenance work on the Flügelhorn that was played by a member of the Königliche Musik und Pumpnickel Gesellschaft, an organization that had a rehearsal hall in the same building. As a result of the collision, umlauts went flying all over the place and Emil, who was a real gentleman, helped Elise gather them up and return them to the box. Emil, who hadn't had a date since the fall of the Habsburg Monarchy (he was one of those German hippies known locally as a "flowerkraut"), chatted up Elise and soon they were holding hands regularly on the Liebestrasse.

As a plumber, Emil had good connections so they were married a few months later and immediately tried to start a family. However, in their wisdom the Buchstahude Bürgermeisters had decided to make the sole road in town one-way only, so when Emil was finished with his day's work and tried to get home, he wound up in the next village located some forty kilometers away. Emil had to abandon his donkey and walk back, arriving home too late and too tired to do anything but have a quick supper of Krabensalat, Schneckenuppe, and Schweinsmedallions. Fortunately, the Bürgermeisters reversed themselves and rescinded the law, and a year later the Buntbarsches were blessed by the arrival of twin boys whom

they christened, Hugo and Hans.

Although the Buntbarsche brothers were rather undistinguished students (Hugo, for example, when asked why Buchstahude cows wear bells answered, "Because their horns don't work," and Hans thought that a Caesarean Section was a district in Rome), they did excel in natural history and even earned money after school by selling the rough bottom fish they found in the local river. For this they were paid daily, a remuneration known by the early Romans as "Karpe per diem." They devised a logo for their business consisting of two interlinked H's, and this was the very first Bismarck.

In addition to collecting carp, Hugo and Hans also netted smaller fishes such as Bitterlings, and also the complementary Dankelings, and this was the very

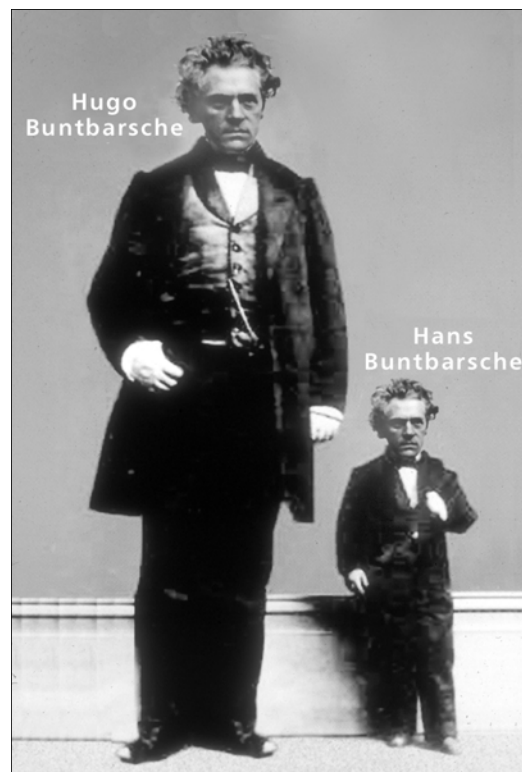


Figure 1: Hugo and Hans Buntbarsche. The brothers were identical twins, so the citizens of Buchstahude had great difficulty in telling them apart. The problem was solved when Hugo began to keep the larger cichlids, and his brother the smaller ones.

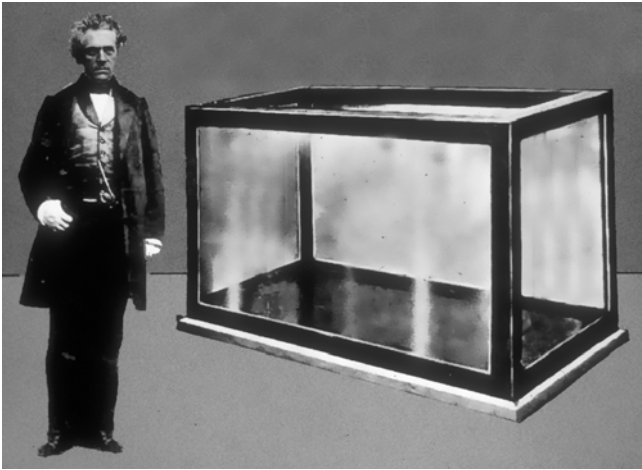


Figure 2: Hugo Buntbarsche and one of his smaller spawning tanks. When Hugo topped up his tanks, the water level in the Rhine dropped three feet.

beginning of the aquarium hobby for them. One of their uncles, Wolfgang Amadeus Buntbarsche, was an importer trading Hasenpfeffer and Kasespaetzle for items that were hard to come by in Buchstahude, such as frankincense and myrrh. Knowing that the boys were interested in keeping fishes, Wolfgang brought back a number of cichlids from Africa and South America, and from that day on the Buntbarsche brothers would keep no other fishes than those.

Their interest in cichlids, however, was quite different. Hugo, who stood 6 feet 7 inches in his Lederhosen, was only interested in the really big species. Hans, who only came up to Hugo's belt buckle, was interested solely in the dwarf species. (Since the brothers were identical twins, the only way the townspeople could tell them apart was by the size of the fish they kept.) Although Hans' equipment was, as befitting his charges, rather small, Hugo's on the other hand were immense. His filters, for example, were made to remove really large particles, such as gravel, dead sheep, and canoeists. Their enthusiasm for these fishes led them to establish, in 1889, the very first cichlid association in the world, the Deutsche Cichlid Gesellschaft (Author's Note: The Minutes of their first meeting are appended to this article).

On one occasion when he discovered some white

spots on one of his Chanchitos, Hugo, who had some knowledge of English, exclaimed, "Ach, this is serious!" Hans misunderstood what his brother was saying and recorded it as "Ach, thee op thirius." Later, a Prussian microbiologist who had trouble with his vowels and thought that a diphthong was the lower part of an abbreviated bathing costume, changed it to "ichthyophthirius." Thus was born the first known aquarium fish disease. Savvy cichlid fanciers still refer to it as "Ach," rather than the more plebeian "Ich" favored by less enlightened aquarists such as guppy fanciers and, of course, killifish enthusiasts. This is not surprising, since the former chose that specialty because it was the only fish they could breed, and none of the latter have been known to respond to any external stimuli whatsoever without



Figure 3: Hans Buntbarsche adjusting the pH in one of his dwarf cichlid aquariums. His tanks were so small that water changes involved eyedroppers and pipettes. Hans only used the finest Kölnisch Wasser (Cologne Water) for his fish. The fish shown here is the very rare *Apistogramma ottovonbismarcki*.



Figure 4: One of Hugo’s large cichlids feeding on his brother’s *Apistogramma*.

Hugo was a careless aquarist and was forever losing his fish. As a consequence the local ASPCA required him to provide them with tags containing his return address. This happened so often that the local fishermen demanded that the postage should be prepaid.

large doses of peat water in their morning coffee.

One day when Hans was out netting daphnia for his dwarf cichlids, Hugo set out to feed his own fish and discovered that he was plumb out of his own fish food, i.e., Bratwurst and Rotkraut. Glancing over at the biggest cichlid in his collection, *Boulengerochromis microlepis*, he noticed that it was heavy with eggs. As this was an emergency, he immediately fed it most of Hans’ prized *Apistogramma* collection.

When Hans returned home and found out what Hugo had done, he completely lost it and grabbed his father’s service revolver and shot Hugo right between the eyes. This created a hole from his forehead to the back of his head about three-quarters of an inch in diameter, but fortunately for Hugo did little harm since the brain is divided up into three parts: the left, the center, and the right and, as is well-known, cichlid fanciers do not use the center portion of the brain for anything of any consequence. Hugo, therefore, did not miss it in any way, the only aftereffect being that, when the wind blew in from the North it made a whooshing sound as it traveled through the hole,

causing Hugo to ask if there was a polka band practicing in the vicinity.

Over the years the Buntbarsche brothers developed many new strains of cichlids, some of which are popular even to this day, such as the “Inherit the Earth Meeki,” sundry genetic variants of *Pelmatochromosome*, *Chichlasomas* in numerous, long-lasting flavors, and the very aggressive *Terrorphyllum scare*. They developed special foods for cichlids, such as the Apristograham cracker, and also developed an interest in their diseases, being the first to develop a vaccine against the dreaded, “Cichlid Cell Anemia.”

(The following is from *Der Buntbarsche Tagesbericht*, Band 1, November 1889. The author hopes that readers may overlook any minor errors that may have occurred in translation. AJK)

Minutes of the first meeting of the Deutsche Cichlid

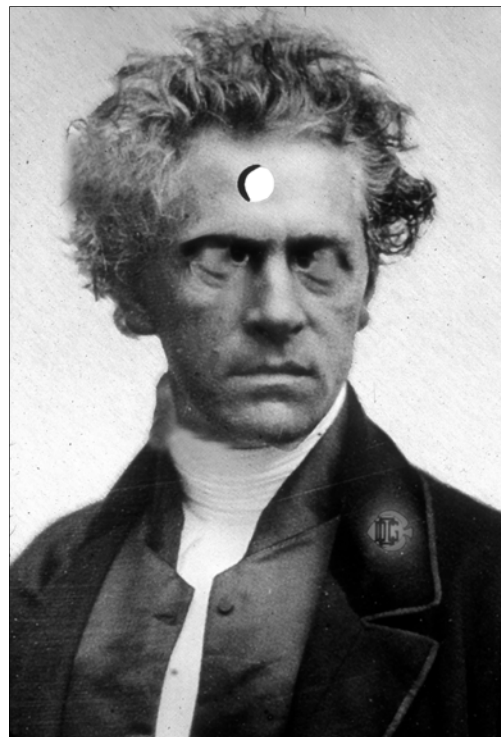


Figure 5: Hugo Buntbarsche after being treated at the Buchstahude Medizinisches Institut für Gestörte Liebhaber von Cichlids (Buchstahude Medical Institute for Disturbed Cichlid Fanciers) for the .44 caliber pistol wound inflicted by his brother.

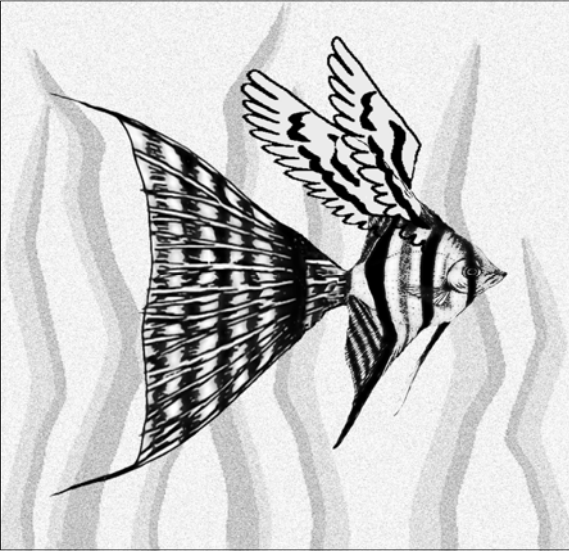


Figure 6: Hugo Buntbarsche developed many specialized strains of cichlids, the most famous being "Der Fliegende Engelfische." Hugo was not satisfied that his Angels were so slow moving, so he set out to remedy the situation. At the time, the "Fliegende Engelfische" could outswim any tetra known to the hobby by a margin of ten to one, and his cat went meshuga trying to catch one.

Gesellschaft, Buchstahude, Germany, October 10, 1889.

Last Thursday evening, just after the conclusion of the featured program, "Convict Cichlids, Three Stripes and You're Out," a sudden storm knocked out all power to the meeting room, plunging it into darkness just as Hermann Groschnoz was admiring the latest trophy he won (and one more to hang with his other *Tropheus*), taking First Place in the South American Class for his "Bandido Chanchito." With the light suddenly extinguished, Herr Groschnoz inadvertently lost his grip on the trophy (a replica of a Valkyrie holding a spear in one hand and a Firemouth cichlid in the other), and the pointed end landed in the vicinity of Gertrude Gummiknüppel's more than ample backside or, more precisely as Herr Doktor Präsident Ottoclave described it, "Wo die Sonne nicht scheinen."

Gertrude, our Refreshment Committee Chairman (known affectionately as "Strudels und Noodles"), was at the time bent over trying to extinguish an ex-

tensive field of candles on her 60th birthday cake, a double German chocolate with extra cream, that she had so thoughtfully brought to the meeting to share with all of us. Upon being struck by the trophy, Gertrude, whose hands were still fastened around the cake plate, cried out "Ach, mein hinteres Ende!" and straightened up rapidly, tossing the cake onto the head of Gottfried Gansburger who, at the time, was attempting to light an eight-inch, Weimar Republic Commemorative cigar. Unfortunately, the cake was liberally laced with rum and promptly exploded upon coming into contact with Gottfried's cigar lighter. His eyebrows were removed during the detonation and pieces of cake were scattered everywhere. One large piece bearing the legend, "Glücklicher Geburtstag, Gertrude," fell into the formidable frontage of Fräulein Katharina ("Die Cupcake") Kantilever, who, upon thinking that her brother-in-law was taking untoward liberties, hollered "Nehmen Sie Ihre Hände aus meinem Büstenhalter!" and lashed out with a half-filled bag of extra hard Pfeffernüsse.

However, in the dark her aim was off and she accidentally struck 97-year old Adolf Edelweiss, our resident expert on *Hemorrhoidichromis* and *Bananacara* species, on the back of his head. Herr Edelweiss's false teeth immediately flew out and upwards, fastening themselves onto Gustav Geschäftig, right in the middle of what can only be described with some delicacy as his "Frucht des Looms." Gustav, who at the time thought the problem was only a burned out light bulb, was on a ladder screwing in a replacement. Yelling "Gott hilft mir!" he dropped the box of light bulbs he was holding and they exploded as they hit the floor. Oberbürgermeister and part time constable, Heinrich Haberdasher, a specialist in Kerosene *Lamprologus*, thought that Napoleon's troops were once again invading peaceful Buchstahude and, drawing his weapon, fired several rounds from his 1873 Mauser pistol. Fortunately no one was injured, but a stray bullet passed through several of the 100-gallon tanks holding the larger cichlids entered in the show.

The floor of the meeting room quickly filled with aged, conditioned water to ankle level and Frieda Fratzsaddle, who had had been celebrating her recent divorce from her fourth husband with a fifth of Old



Figure 7: Not to be outdone by his brother, Hans Buntbarsche developed a number of *ramirezi* strains, one of which was his "Alpen Ram." It proved to be a nuisance to other fish as it was always butting into their conversations. Moreover, the fish were hard to feed, as they would only eat fresh Edelweiss.

Granddad ("Alte Grossvater") became confused, thinking she was on a sinking ship. Her ecumenical cries convinced all present to join hands and sing the only Calvinist hymn she knew, "Näher mein Gott zu Ihnen" ("Nearer My God to Thee"). Although the lights came on shortly afterwards, it took some time before sundry indignities were forgotten. The fish thrashing on the floor were carefully sorted out from pieces of glass, false teeth, and birthday cake, and a motion to adjourn was made, seconded, and passed.

Respectively submitted, Lotte Kasebier, Sekretär.

[Author's comment: This last entry that follows shows that it is not necessarily the writer that must supply the humor. Sometimes the material itself does the job. After all, a good story is, when all is said and done, a good story!]

RAFINESQUE TO YOU, TOO!

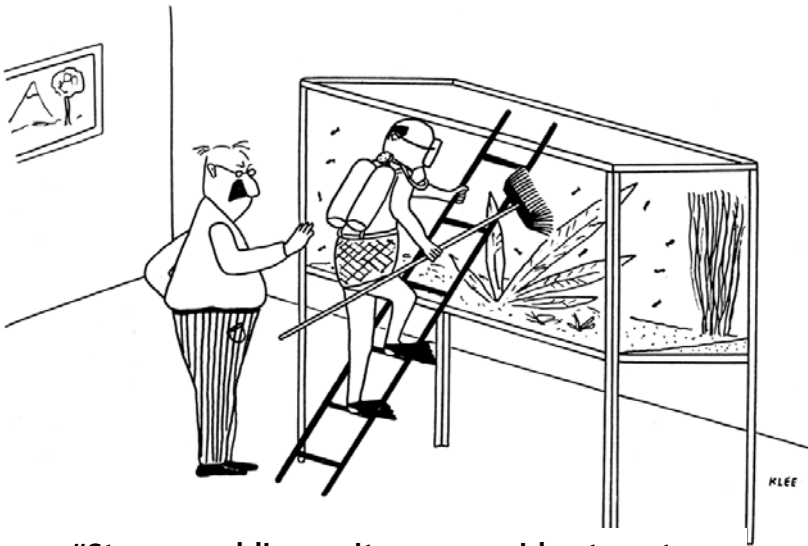
Browsing around in what most aquarists would consider to be the relatively musty corners of ichthyology is a rather rewarding experience for me personally. It kind of offers a change of pace from the wrinkled fingertips one usually obtains as a consequence

of long immersion in water (carefully aged, that is!). For example, what's the longest scientific fish name? Well, the record name, and one still in use today, is *Microstomatichthyoborus bashforddeani*! Rather dryly, the famous American ichthyologist, David Starr Jordan, commented: "It is hoped that no one will attempt to break this record"... Amen!

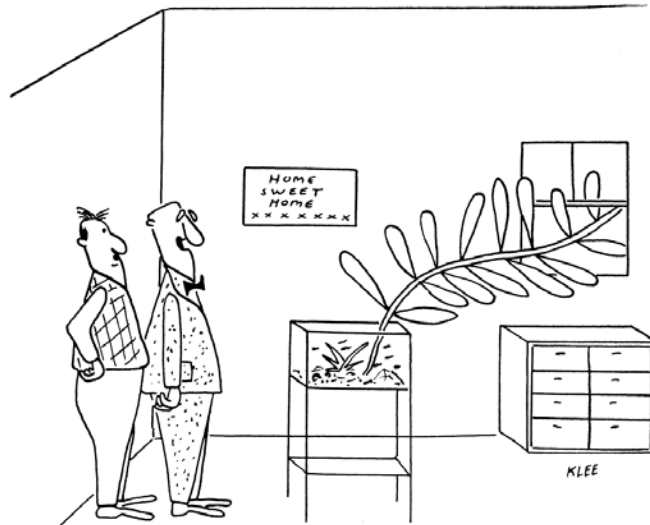
Quite frequently I encounter amusing incidents revolving about eminent scientific personalities that deserve a chuckle now and then. The ichthyologist, Carlo Bonaparte, once thought to name a fish in honor of the ichthyologist, Cocco, and came up with the monstrosity, *Ichthyococcus*! It sounded more like a fish disease than the name of a fish! The great British ichthyologist, Guenther, understandably was a bit miffed at this, reflecting that such names have "always been considered as a nuisance." Consequently, he changed the name to the more reasonable, *Coccia*, but unfortunately, according to the Rules of Nomenclature, *Ichthyococcus*, still stands today as its correct name.

But now we come to perhaps the strangest and most hilarious story in the whole of ichthyology. Without doubt, one of the most fascinating characters in its history was Constantine Samuel Rafinesque-Schmaltz (his last name later written simply as Rafinesque). At this point, readers may think that I am pulling their legs but I assure everyone that the following account is "gospel!" Rafinesque named many fishes, among them a number of aquarium species as well, e.g., *Fundulus notatus*. He was an eccentric, wanderer-naturalist, and self-styled linguist who, after a brief sojourn in America, moved to Sicily. However, he finally settled in the United States and actively collected many objects of natural history from fishes to plants. Therefore, we may claim Rafinesque as our "own."

Now when I state that Prof. Rafinesque was a "character," I mean to imply that it should really be spelled with a capital "C." So great was his zeal for naming new things that he claimed to have discovered and given names to 12 species of lightning and thunder on the headwaters of the Ohio River! Rafinesque had a predilection for inventing many nonsense generic names of peculiar sound and spelling.



"Stop grumbling ... it was your idea to get a 500-gallon tank!"



"They sold it to me as Giant Hygrophila!"



In fishes, for example, here are several illustrations: *Onus*, *Stizostedion*, *Ilictis* and *Atractosteus*! Nevertheless, as a consequence of being one of the first ichthyologists to study two of the world's richest fish faunas, that of Sicily and that of the Ohio River, he was an important ichthyologist. David Starr Jordan had this to say of him: "His various papers show his peculiar traits, intense activity, keen philosophical insight, and hopeless slovenliness in method."

And now we come to the story of perhaps the greatest joke in ichthyological history. Rafinesque was an acquaintance of the great ornithologist and painter of birds, Audubon, and in 1818, he found himself a guest at Audubon's home at Hendersonville, Kentucky. Now, Audubon's own personal formula for relaxing was to play the violin and he owned quite an expensive instrument. Unfortunately for the great ornithologist, the violin happened to be kept in the room occupied by Rafinesque. One night, bats entered the window and Rafinesque was convinced immediately that they were a new species. Needing something with which to club them down, Rafinesque seized Audubon's prized violin and proceeded to capture his specimens and demolish the instrument in the process.

To say that Audubon was annoyed when he learned what happened to his violin is an understatement and he vowed revenge. Thereupon, he sat down and painted several mythical fishes, showing them to Rafinesque with the comment that they were seen by him, "down by the river." Rafinesque, of course, was delighted and promptly wrote a paper entitled, "Further Discoveries in Natural History." In this paper he described three new genera, viz., *Pogostoma*, *Dinectus* and *Litholepis*. The last-named genus literally means, "stone-scaled" and was given by Rafinesque after Audubon told him that the fish in question was known locally as the "devil-jack diamond fish," the scales of which would "turn a rifle ball!" Rafinesque was the object of several additional ichthyological jokes, all of which were dutifully written up in the scientific literature, a process which took several years. It is not recorded what Rafinesque said when he learned about Audubon's jokes, but for a family-type magazine such as TROPICALS it is probably just as well!

EMBARRASING MOMENTS IN THE ADVANCE OF AQUARIUM SCIENCE

This appeared as a post on the Yahoo Aquarium Hobby Historical Society Group, July 15, 2013. Tongue in cheek, it was designed enter some whimsy into an otherwise straight-forward historical account.

Over the years I have been somewhat amused over the mention by some aquarists of the use of the urine of a pregnant woman to spawn problem fishes. Because these aquarists evidently do not have access to the original material or else forgot where it originated, invariably they get it all wrong.

This was brought to my attention recently when I sat down and reviewed the DVD that the Northeast Council of Aquarium Societies published containing the "An Evening with the Legends" program that took place in April 2006. During Rosario LaCortes's presentation, Zar showed images of aquarists he had known over the years and mentioned one Walt Kelly, who was a sort of Baron Munchhausen type famous for telling tall tales.

One time while a number of aquarists were visiting Zar, Walt Kelly included, the talk turned to the Tetra Perez, a recently imported tetra of extraordinary beauty. The fish had not yet been bred and Zar suggested that to help things along one might try peeing in its tank. Everyone laughed but Zar said that it was no joke, that someone in Holland had taken some pregnant mare's urine, extracted the gonadotropin from it and added it to a tank of hatchetfish whereupon shortly afterwards the fish spawned.

Sometime later, Kelly reported to Zar - and the world - that he had spawned the Headstander, *Anostomus anostomus*, quite a feat if indeed it had been true. According to Kelly, after exhausting all avenues, he dropped his trousers and peed into the tank. The next morning the Headstanders had spawned. As we all know, Zar has a first class sense of humor and his comment was, "Kelly was a big beer drinker. If he had peed in the tank those fish would have been dead in a minute!"

The source of the original story was my article, "Pregnancy, Urine and Problem Fishes," that appeared in the October 1962 issue of the *Aquarium Journal*. The article, by the way, can be found in my *Anthologica Aquatica*, Volume I, pages 115-118.

With the help of a friend, I actually duplicated the Dutch experiments - the only American aquarist to do so that I know of - and the details and results are part of the aforementioned article. However, the point to this post is not in the details of the science involved, but in the very delicate problem I had in carrying out the experiments.

As a rabbit stew must start with a rabbit, the experiments had to start with the urine from a pregnant woman. In a situation like this, an ideal solution would be if one's wife was pregnant. In my wife's case, however, I had no success whatsoever in persuading her to become pregnant to further the cause of aquarium science. I will not repeat my wife's comments here, although I recall a decidedly unlady-like aspect to them, quite atypical of her, I assure you.

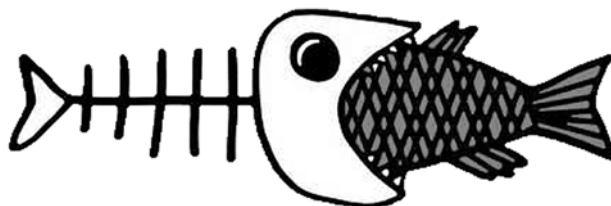
I had only one possibility open to me in that Beverly, the wife of the aforementioned good friend, was in her eighth month of pregnancy. Although Wayne was an aquarist, she was not, although she was generous with her time, helping to supply the refreshments at the monthly meetings of our local aquarium society. However, supplying refreshments was one thing, supplying urine was quite another.

I thought the ideal solution would be for my wife to approach her on the subject, woman-to-woman, but as she was fixing eggs Benedict at the time with a very large iron skillet in her hand, I thought better of it and abandoned the idea. There was nothing left for it but to approach the couple, together with my wife who was looking forward to my discomfort and embarrassment, fumbling with words as I tried to find the best way to frame the request. By the way, her mood that day was a result of my forgetting the first principle of a happy marriage, that of lying through one's teeth when one's wife asks, "Dear, do you think this dress makes me a look a bit overweight?"

Thus, we invited the couple over and I made my pitch trying to stress the science of the whole thing. For a few moments after I had finished there wasn't a sound in the room. Suddenly, however, a roar of laughter came from Beverly and my first thought was that I had caused her water to break and we were all shortly to be dashing on our way to the hospital. Beverly, however, was fine and although she thought it all hilarious, readily agreed. My supply assured, Wayne and I were able to carry out the experiments described in the article.

A few years later we moved and lost touch with Wayne and Beverly, but forty years later we met up once again and, over dinner, the subject was resurrected. Beverly told us that she had been telling the story to her friends for decades, putting them in the same stitches she had been in those many years ago!

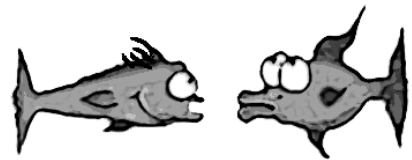
P.S. My wife wishes it to be known to all that my allusions to her above are gratuitous and rife with gross exaggeration, like the time I told my friends shortly after we were married that eating her cooking came with certain hazards, such as the bones in her chocolate pudding.



LAST LAUGHS

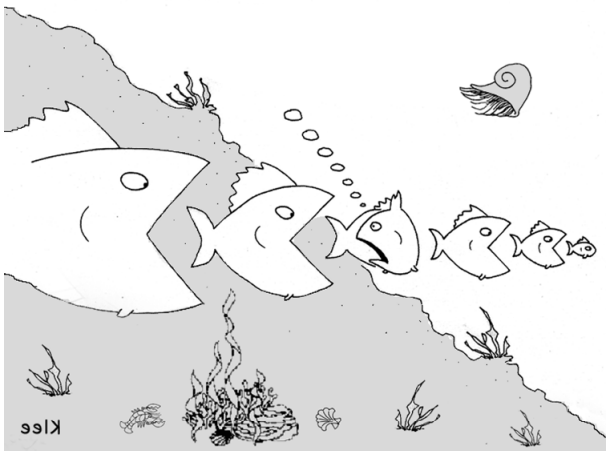


"How do you like my fighting fish?"



Klee

"He's been signing autographs ever since David Starr Jordan declared him a type species!"



"Hey, wait a minute!
I haven't been described yet!"



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