esp. Rule #2.

D.C.

P.S. This was given to me by one of the Board of Directors — gives you some idea of how they think —

HOW TO SWIM WITH SHARKS: A PRIMER

*VOLTAIRE COUSTEAU**

Foreword

Actually, nobody *wants* to swim with sharks. It is not an acknowledged sport, and it is neither enjoyable nor exhilarating. These instructions are written primarily for the benefit of those who, by virtue of their occupation, find they *must* swim and find that the water is infested with sharks.

It is of obvious importance to learn that the waters are shark infested before commencing to swim. It is safe to assume that this initial determination has already been made. If the waters were clearly not shark infested, this would be of little interest or value. If the waters were shark infested, the naïve swimmer is by now probably beyond help; at the very least he has doubtless lost any interest in learning how to swim with sharks.

Finally, swimming with sharks is like any other skill: it cannot be learned from books alone; the novice must practice in order to develop the skill. The following rules simply set forth the fundamental principles which, if followed, will make it possible to survive while becoming expert through practice.

Rules

1. *Assume unidentified fish are sharks.**—Not all sharks look like sharks, and some fish which are not sharks sometimes act like sharks. Unless you have witnessed docile behavior in the presence of shed blood on more than one occasion, it is best to assume an unknown

* Little is known about the author, who died in Paris in 1812. He may have been a descendant of Francois Voltaire and an ancestor of Jacques Cousteau. Apparently this essay was written for sponge divers. Because it may have broader implications, it was translated from the French by Richard J. Johns, an obscure French scholar and Massey Professor and director of the Department of Biomedical Engineering, The Johns Hopkins University and Hospital, 720 Rutland Avenue, Baltimore, Maryland 21205.

* my first mistake

species is a shark. Inexperienced swimmers have been badly mangled by assuming that docile behavior in the absence of blood indicates that the fish is not a shark.

2. *Do not bleed.*—It is a cardinal principle that if you are injured either by accident or by intent you must not bleed. Experience shows that bleeding prompts an even more aggressive attack and will often provoke the participation of sharks which are uninvolved or, as noted above, are usually docile.

Admittedly, it is difficult not to bleed when injured. Indeed, at first this may seem impossible. Diligent practice, however, will permit the experienced swimmer to sustain a serious laceration without bleeding and without even exhibiting any loss of composure. This hemostatic reflex can in part be conditioned, but there may be constitutional aspects as well. Those who cannot learn to control their bleeding should not attempt to swim with sharks, for the peril is too great.

The control of bleeding has a positive protective element for the swimmer. The shark will be confused as to whether or not his attack has injured you, and confusion is to the swimmer's advantage. On the other hand, the shark may know he has injured you and be puzzled as to why you do not bleed or show distress. This also has a profound effect on sharks. They begin questioning their own potency or, alternatively, believe the swimmer to have supernatural powers.

3. *Counter any aggression promptly.*—Sharks rarely attack a swimmer without warning. Usually there is some tentative, exploratory aggressive action. It is important that the swimmer recognizes that this behavior is a prelude to an attack and takes prompt and vigorous remedial action. The appropriate countermove is a sharp blow to the nose. Almost invariably this will prevent a full-scale attack, for it makes it clear that you understand the shark's intentions and are prepared to use whatever force is necessary to repel his aggressive actions.

Some swimmers mistakenly believe that an ingratiating attitude will dispel an attack under these circumstances. This is not correct; such a response provokes a shark attack. Those who hold this erroneous view can usually be identified by their missing limb.

4. *Get out if someone is bleeding.*—If a swimmer (or shark) has been injured and is bleeding, get out of the water promptly. The presence of blood and the thrashing of water will elicit aggressive behavior even in the most docile of sharks. This latter group, poorly

skilled in attacking, often behaves irrationally and may attack uninvolved swimmers or sharks. Some are so inept that in the confusion they injure themselves.

No useful purpose is served in attempting to rescue the injured swimmer. He either will or will not survive the attack, and your intervention cannot protect him once blood has been shed. Those who survive such an attack rarely venture to swim with sharks again, an attitude which is readily understandable.

The lack of effective countermeasures to a fully developed shark attack emphasizes the importance of the earlier rules.

5. *Use anticipatory retaliation.*—A constant danger to the skilled swimmer is that the sharks will forget that he is skilled and may attack in error. Some sharks have notoriously poor memories in this regard. This memory loss can be prevented by a program of anticipatory retaliation. The skilled swimmer should engage in these activities periodically, and the periods should be less than the memory span of the shark. Thus, it is not possible to state fixed intervals. The procedure may need to be repeated frequently with forgetful sharks and need be done only once for sharks with total recall.

The procedure is essentially the same as described under rule 3—a sharp blow to the nose. Here, however, the blow is unexpected and serves to remind the shark that you are both alert and unafraid. Swimmers should take care not to injure the shark and draw blood during this exercise for two reasons: First, sharks often bleed profusely, and this leads to the chaotic situation described under rule 4. Second, if swimmers act in this fashion it may not be possible to distinguish swimmers from sharks. Indeed, renegade swimmers are far worse than sharks, for none of the rules or measures described here is effective in controlling their aggressive behavior.

6. *Disorganize an organized attack.*—Usually sharks are sufficiently self-centered that they do not act in concert against a swimmer. This lack of organization greatly reduces the risk of swimming among sharks. However, upon occasion the sharks may launch a coordinated attack upon a swimmer or even upon one of their number. While the latter event is of no particular concern to a swimmer, it is essential that one know how to handle an organized shark attack directed against a swimmer.

The proper strategy is diversion. Sharks can be diverted from their organized attack in one of two ways. First, sharks as a group are especially prone to internal dissension. An experienced swimmer can

divert an organized attack by introducing something, often something minor or trivial, which sets the sharks to fighting among themselves. Usually by the time the internal conflict is settled the sharks cannot even recall what they were setting about to do, much less get organized to do it.

A second mechanism of diversion is to introduce something which so enrages the members of the group that they begin to lash out in all directions, even attacking inanimate objects in their fury.

What should be introduced? Unfortunately, different things prompt internal dissension or blind fury in different groups of sharks. Here one must be experienced in dealing with a given group of sharks, for what enrages one group will pass unnoted by another.

It is scarcely necessary to state that it is unethical for a swimmer under attack by a group of sharks to counter the attack by diverting them to another swimmer. It is, however, common to see this done by novice swimmers and by sharks when they fall under a concerted attack.