20 Point description of Adaptive Camouflage Sharkview™ method

1. Most research on sharks performed by using chum (fish oil and blood) does not replicate natural behaviour and therefore it cannot be used to predict the actions of sharks
2. Sharks search for prey by random and sense directed means and on locating decide if its eatable, able to captured and then makes a fast attacking run to subdue the prey
3. Senses are used at different ranges to find that prey; at longer range smell and hearing are used, mid range electrical and lateral line and at close range vision and finally taste
4. Vision is well understood by marine scientists to be critical to hunting success as it gives the rapid response to changes in the position of the prey item with failed attempts often the result of the shark losing sight of the object
5. Current knowledge of shark vision is that it consists of very high contrast with a blue or green hue and has special features to increase it effectiveness in low light or murky water
6. Most attacks are the result of an error in the assessment by the shark that the surfer is a prey item and the attack not usually continued beyond the first initial bite
7. The commonly used method of avoiding predators is not being identified as a prey item by using camouflage to blend in to the background and disguise the shape
8. Fish that live on the bottom match that background, fish in mid water are not blue or other fixed colours as the background water varies throughout the day
9. Most mid water fish have silver reflective scales that passively adapt to changing light and water colours to hide at a distance and can confuse predators at close range
10. At the air and water interface light passes through at different rates, more light is reflected the further away from directly vertical until it becomes almost mirror like
11. The reflected image is at a reciprocal (opposite) angle to the to the viewer at and the less water movement and the greater the clarity the better that image will be
12. Sharkview™ mimics the scales of fish by the use of a specially engineered reflective film on the bottom of the board with a specific range of reflective values and pattern of a determined shape and scale to make it blend to the surround water
13. Sharkview™ uses these factors to help an object blend into surface and disguise the shape of that object as it adapts passively to changes in light levels and water colours.
14. The board will reflect the exact colour and movement of the water at a reciprocal angle from the viewer and change as the water changes throughout the day
15. This reduces encounters by limiting the distance at which the board can be seen and if the shark is aware that there is an object on the surface it will be a perfect match to the water with an indeterminate shape giving no reason to investigate any closer
16. Black wetsuits are a poor option in not being seen by sharks as they create a high contrast against the surface or light coloured board
17. Coloured wetsuits will match the water as some times but not others, soft shapes of an appropriate scale in greys perform better as camouflage to break up the outline
18. A base camouflage can be overlaid with patterns of objects that sharks are familiar with or items that are likely to be avoided to lead to a dismissal of the item as potential prey
19. The combination of the reflective board and wetsuit will hide the surfer giving little reason for the shark to come within striking range or lead to mistaking them for possible prey
20. The shark can not become accustomed to the effect nor will it imped the surfer or board performance, it will be effective in all geographical locations, water conditions and times of day