

**ACTIVITY:** Diving

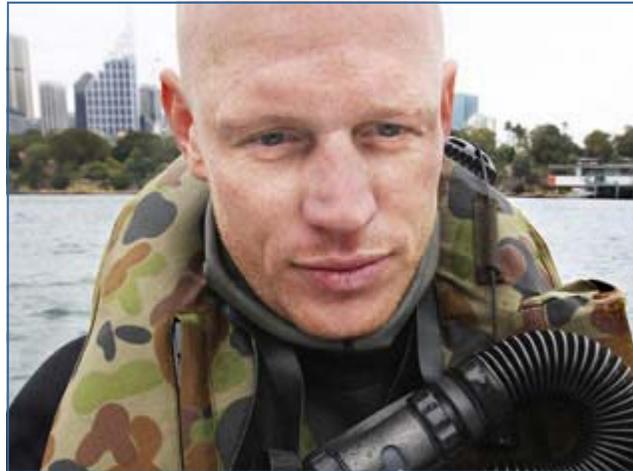
**CASE:** [GSAF 2009.02.11](#)

**DATE:** Wednesday February 11, 2009

**LOCATION:** The attack occurred in Woolloomooloo Bay off the western side of the naval base located on Garden Island in Sydney Harbor, Sydney New South Wales, Australia.

**NAME:** Paul Degelder.

**DESCRIPTION:** He is a 31-year-old male, an Australian Navy Clearance Diver.



### **BACKGROUND**

**WEATHER:** At 06h30, nearby Richmond recorded 6.2-mile visibility and overcast skies. The air temperature was 62.6°F, dew point 57.2°F, humidity 82%, sea level pressure 29.83 inches, and wind direction was SSW at 5.8 mph. At 07h00, conditions were essentially unchanged; sea level pressure was 29.86 inches, and the wind had dropped slightly to 4.6 mph.

**MOON PHASE:** Full Moon, February 10, 2009.

**SEA CONDITIONS:** The New South Wales Department of Environment and Climate Change said efforts to revive the water quality in Sydney Harbour had made it more appealing to sharks. Over the past 30 years, governments have introduced industrial regulations, toxic chemical bans and stormwater treatment programs. Fishing operations have also been restricted. "As the harbour gets healthier, so the numbers of fish are likely to improve, and so, too, you may also have sharks attracted to the whole area," a departmental spokesman said.

**ENVIRONMENT:** Local fishermen have reported increased numbers of sharks in the harbour in the past few weeks. Craig McGill, a local fishing operator, said: "We're seeing more tiger sharks in the last two weeks than we've seen in 20 years. It's low-risk in winter, but it's certainly not low-risk when there's 200 sharks off Garden Island."

**DEPTH OF WATER:** The incident took place on the surface.

**TIME:** 06h55



*Garden Island*

**NARRATIVE:** Seaman Degelder was on the surface, on his back kicking, when he was bitten by the shark. Commander of the Australian Fleet, Rear Admiral Nigel Coates, said Degelder was in the water with a police diver on the last day of an international counter-terrorism exercise. "It all happened very quickly, I'm told," he said. "He fought the shark, punched it a few times," said Admiral Coates. "The shark disappeared. Our diver then swam to our nearby naval safety boat, which wasn't far away."

**INJURY:** The patient sustained severe injuries to his right hand, buttocks and right thigh down to his knee. He sustained a very large posterior right thigh defect (20 cm x 35 cm). All the muscles of the posterior compartment were absent. The superficial femoral artery and femoral vein were exposed, but intact. The profunda femoris artery was intact, but several large branches had been avulsed. The sciatic nerve was absent over a 22-cm length. The right hand had been almost completely amputated at the level of the distal radio-ulnar joint. Only two crushed digits remained joined the forearm by a bridge of dorsal skin.



**FIRST AID:** "The people on the safety boat got him into the boat, they administered first aid, rang 000 and got him ashore for the short trip by ambulance and up to St Vincent's as fast as they could," said Admiral Coates. First aid consisted of pressure dressings to wounds on his right hand and right thigh. Ambulance officers applied a broad tourniquet to the right thigh and reinforced the dressings. They said that despite the severity of his wounds, Able Seaman Degelder was conscious and in "good humour".

**TREATMENT:** When the patient arrived by ambulance at St Vincent's Hospital Emergency Department at about 07h00 he was in a critical condition. A primary survey was completed and a code crimson protocol was activated. He was transferred directly to the operating suite. After haemostasis had been achieved, the wound on his right thigh was thoroughly irrigated and packed with iodine-soaked sponges. An amputation, 3 cm proximal to the right wrist, was performed, with direct closure of skin flaps over the stump. Empirical antimicrobial therapy of 1 g ceftriaxone, 240 mg gentamicin and 500 mg metronidazole was administered intraoperatively.

Post-operatively, the patient was transferred to the intensive care unit where he remained sedated and intubated. Regular doses of intravenous ciprofloxacin 400 mg twice daily and tazocin (piperacillin/tazobactam) 4.5 g three times a day were commenced.

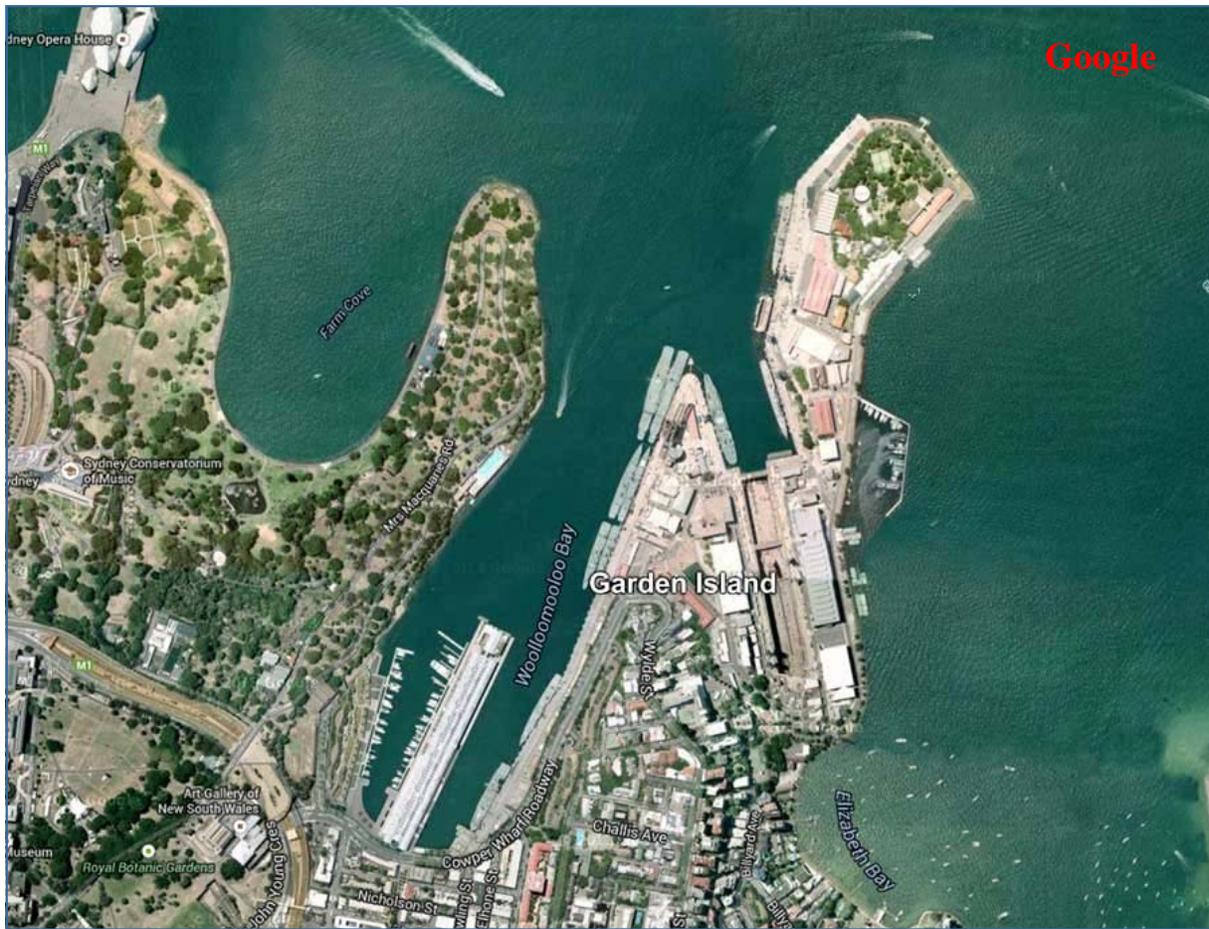
On the following day the patient was returned to the operating theatre for a change of dressing and a further washout and debridement of the thigh.

Due to the large segmental sciatic nerve defect and absence of the entire posterior muscle compartment of the thigh, a right above-knee amputation was planned. The surgery took place on day 7 post-injury. To reconstruct the large defect over the posterior thigh, the lower leg skin and muscles were filleted on the popliteal, peroneal and tibial vessels. In order to achieve this, the foot was first amputated through the ankle joint. The tibia and fibula were carefully dissected away from the soft tissues preserving the vessels. The femur was divided proximal to the femoral condyles. The flap of tissue was then inset into the defect over two large caliber suction drains.

At 3 weeks post-operatively, the wounds were clean and healing well. At this time the

surgical drains were removed. Moulding dressings for both forearm and leg stumps were commenced in preparation for fitting of prostheses.

**SPECIES:** "The patient said he saw something big and grey underneath him just before the attack," an ambulance spokesman said. Dr. Vic Peddemors, a forensic investigator of shark attacks in New South Wales, determined the incident involved a bull shark approximately 2.7 metres in length.



## Navy hunts shark that attacked diver in Sydney Harbour

THE sailor savaged by a shark in Sydney Harbour has been named as Able Seaman Clearance Diver Paul Degelder.

The 31-year-old lost one hand and part of a leg in the incident shortly before 7am (AEDT) at the navy base near the iconic Harrys Cafe de Wheels at Woolloomooloo.

Seaman Degelder - of the Royal Australian navy's Clearance Diving Team 1, based at *HMAS Waterhen* at Waverton in Sydney's north - was carrying out an anti-terrorism exercise off the *HMAS Darwin* docked at Garden Island at the time. The divers involved in the incident could not identify the species or size of the shark - but it is believed to have been a bull shark.

"The attack occurred very quickly," Australian Fleet Commander Rear Admiral Nigel Coates said. "The shark attacked the diver (and) our diver punched the shark, I believe, a couple of times. The shark then disappeared very quickly - it was all over, I'm told, in a few seconds."

Admiral Coates told how Seaman Degelders fought off the shark. "He was with a police diver, I understand, at the time because the exercise included police divers. The attack occurred on the surface," he said. "He fought off the shark. He hit the shark a few times, as I understand it, and then swam a couple of metres to the safety boat which was obviously nearby. "The safety boat people got him on board, applied first aid, rang triple-0, got him to the ambulance and up to the hospital."

Seaman Degelders was taken to St Vincent's Hospital, where a spokesman at 11am (AEDT) said he had undergone surgery and was now in intensive care in a serious but stable condition. "He's improved a little bit," the spokesman said. "He's out of surgery and he's in recovery."

Admiral Coates said it was the first time he had heard of a navy diver being injured in such an incident.

Since February 2, the Navy has been conducting its Kondari Trial to test new technologies designed to protect Australia's ports, naval bases and ships from water attacks. The trials include detecting divers with SONAR equipment and using remotely operated underwater vehicles to inspect the hulls of ships, as well as piers and surrounding sea beds.

But those operations have been called off following the attack. "We have suspended our diving activities over this exercise until further notice," Admiral Coates said. "I understand there are boats out looking for the shark."

The last shark attack in Sydney Harbour was at Athol Bay, near Taronga Zoo, in 2000, and the last fatal shark attack in the Harbour occurred in 1963 when Martha Hathaway was killed by a bull shark at Middle Harbour.

**SOURCE:** February 11, 2009; <http://www.news.com.au/story/0,27574,25038959-421,00.html>



### Navy man attacked by shark loses right hand

PAUL DE GELDER was on the surface of the water, on his back kicking, when the shark attacked.

The police diver with Able Seaman de Gelder, 31, was doing the same counter-terrorism exercise at Woolloomooloo Bay in Sydney Harbour on Wednesday when he heard screams.

Detective Inspector Glenn Finnis from NSW Police Marine Area Command said such an attack was a concern but it would not deter police divers from using the harbour. He said police divers carried sonar devices but the shark was not detected.

Able Seaman de Gelder has lost his right hand above the wrist and may lose his right leg but was in "high spirits", his family said.

His brother, Travis, 29, said Able Seaman de Gelder was coping "very well mentally" and was "a very strong person".

"The family are very relieved that Paul is alive," he said. "He had some pretty serious injuries ... He's handling it quite well at the moment. The medical staff have been fantastic.

"He loves diving; it's a big part of his life. This will come as quite a shock to him."

The shark biologist for the NSW Department of Primary Industries, Vic Peddemors, said it was too early to know the type or the size of the shark that bit Able Seaman de Gelder, as the diver had not yet spoken to him. But the severity of the injuries meant it was probably a large one.

"There's really only three species that would consider biting a human - that would be the bull shark, the tiger shark and the great white, so the likelihood is that it would be one of those three," Dr Peddemors said.

Able Seaman Gelder was in intensive care last night, in a serious but stable condition, a spokesman for St Vincent's Hospital said. He underwent a second operation yesterday.

The Sydney Harbour Swim Classic will go ahead next month despite the attack.

**SOURCE:** Peter Hawkins and Dylan Welch, Sydney Morning Herald, February 13, 2009; <http://www.smh.com.au/national/navy-man-attacked-by-shark-loses-right-hand-20090212-85zi.html>

### **Bull shark which attacked Navy diver 'size of small sedan'**

**A BULL shark "the size of a small sedan" was responsible for the attack on a navy diver in Sydney Harbour last week, it was revealed today.**

NSW Department of Primary Industries shark attack investigators have identified a 2.7m long bull shark as responsible for the attack on Paul de Gelder after examining his shredded wetsuit.

"This kind of shark loves murky water, and is particularly active around dawn - the time of the attack," Primary Industries minister Ian Macdonald said.

He said the shark was "the size of a small sedan",

The shark mauled de Gelder, 31, as he swam on the surface near Garden Island with a NSW police diver during an anti-terrorism training exercise about 7am last Wednesday.

The radius of bite wounds can indicate the size of a shark, and tooth marks help indicate the species involved in an attack.

Bull sharks have been responsible for eight fatal attacks in Sydney Harbour alone since 1900, and are suspected of at least a dozen more attacks which killed or injured swimmers in the harbour, according to the Australian Shark Attack File.

All the fatal bull shark attacks were unprovoked according to the file, and all but one were on swimmers.

Investigators are still trying to determine what shark attacked a surfer at Bondi a day after de Gelder's mauling.

**SOURCE:** Malcolm Holland, Daily Telegraph, February 18, 2009,  
<http://www.news.com.au/dailytelegraph/story/0,22049,25072973-5015643,00.html>

## Navy diver Paul de Gelder loses leg after shark attack in Sydney Harbour

***THE elite navy diver who lost his hand when he was mauled by a shark in Sydney Harbour last week underwent surgery yesterday to have his right leg amputated.***

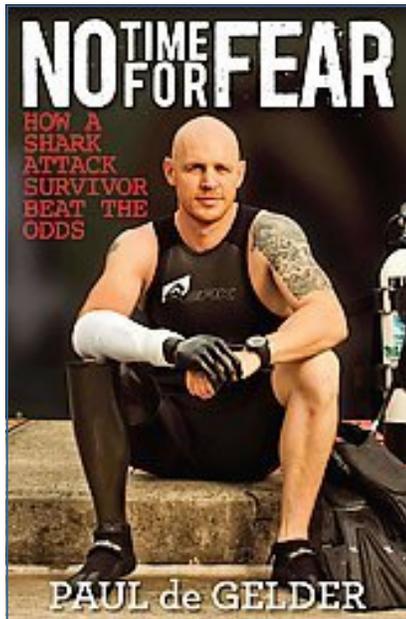
But despite what appear to be career-ending injuries, Able Seaman Paul de Gelder, 31, has vowed to get back in the water. "I'm looking forward to rebuilding my life and taking on the new challenges I have to face. Ultimately, I would like to return to what I love -- navy diving," he said in a statement released by the Department of Defence.

The diver was savaged by a 2.7m bull shark while he was conducting anti-terrorism exercises in Woolloomooloo Bay. A day later, a 33-year-old surfer, Glen Orgias, was savaged by a shark at Bondi Beach.

Able Seaman de Gelder yesterday paid tribute to the people who saved his life and offered him support since the attack. "The past week has been quite an overwhelming experience and without certain people I definitely wouldn't be alive today," he said.

"I'd like to thank a couple of heroes: Leading Seaman Clearance Diver Jeremy Thomas, Able Seaman Clearance Diver Ryan Dart and Seaman Clearance Diver Arthur McLachlin, my colleagues and good mates who pulled me out of the water and saved me. I'd also like to thank the paramedics who got me to the hospital within an inch of my life and, finally, I must express my deepest gratitude to the fantastic doctors and staff at St Vincent's emergency, ICU and Navy Ward."

**SOURCE:** Jared Owens, The Australian, February 19, 2009,  
<http://www.theaustralian.news.com.au/story/0,25197,25075692-5006784,00.html>



## Jaws give science the clues to identify culprits

**GREAT gaping wounds, shredded wetsuits and the splintered fibreglass of smashed surfboards are Vic Peddemors' speciality.**

He is the Gil Grissom of shark attacks, the head of, for want of a better description, shark attack CSI in NSW. It's his job to examine the evidence to discover which species is responsible for a shark mauling - and he has been busy this past week or two.

Mr Peddemors' office in a Department of Primary Industries fisheries research centre at Port Hacking in Sydney's south is lined with the tools of his trade. Along with the computer and filing cabinets are shark jaws - and lots of them. On his computer screen is a photo of the jagged tears in the leg of the wetsuit which navy diver Paul de Gelder was wearing when he was attacked near Garden Island about 7am on a gloomy morning last week. Placed beside the ripped black neoprene are the jaws of a 2.8m bull shark. The slices and cuts in the wetsuit align almost perfectly with the triangular razor blades which are a bull shark's upper teeth. The curve of the cuts in the wetsuit match the jaw's size. The gaps between teeth match too.



*Dr. Vic Peddemors*

### **Culprit found.**

Mr Peddemors believes it was a bull shark of about 2.7m. He thinks the shark came from the side, almost perpendicular to the diver and slightly below him when it struck.

The jaws explain why doctors had to amputate Able Seaman de Gelder's hand and then his leg on Wednesday. "The configuration of their teeth and the way bull sharks bite leaves very nasty, messy wounds which can be hard to repair," Mr Peddemors, 48, who moved from South Africa a year ago, said.

Without access to a surfboard or a torn wetsuit, or marks on a diver's weight belt, Mr Peddemors' task is more gruesome. "After the police or lifeguards have contacted us to tell of an attack, I'll immediately call the hospital and ask for photos of the injuries to be taken," he said. Investigating dozens of attacks has left him able to ignore the gore and simply concentrate on the forensic examination of a wound, matching flayed flesh to his collection of jaws. All the jaws come from sharks caught in the shark nets rotated between the beaches along the coast from Newcastle through Sydney to Wollongong.

Mr Peddemors said he was not affected by the more horrific aspects of his job. "You have to concentrate on the clues, not the blood. In South Africa I had to deal with bodies. I haven't had to deal with a body from an attack in NSW yet," he said. He will send reports to the victims as it helps them deal with their anguish.

**SOURCE:** Malcolm Holland, Daily Telegraph, February 20, 2009



*Fighting back: Paul does pull-ups in his hospital bed during his initial recovery.*

### **Paul de Gelder recounts the horror of his shark attack ordeal**

I FELT an almighty whack on the leg. I didn't think too much of it at first. It didn't hurt.

Half a second later I turned over, looked down to check my leg and saw the huge grey head of a bull shark, one of nature's most aggressive man-eaters. What's more, I could see the upper row of its teeth across my leg. Its lip was pulled back and its mouth looked enormous. We must have stared at each other for about three seconds but as soon as I recovered from the shock, I started fighting for my life.

I couldn't seem to move my arm. It was pinned down by my side. I hadn't realised my hand was also in its mouth. I tried to stab it in the eyeball with my other hand. I tried to push its nose, but my hand just slid off, like pushing a slippery concrete wall. I pulled back my left arm and punched the shark as hard as I could on the nose.

It started shaking me like a dog would a rag doll. The shark pulled me down under the water, continuing to shake me. The second time I went under I could only see bubbles in front of my face.

I no longer felt any pain. I couldn't do anything. I was totally helpless. Everything was quiet. There was just a deep silence. And then, just as suddenly, the shark was gone.

His injuries were horrific. The shark had been eating him alive. Doctors amputated Able Seaman de Gelder's right forearm and leg and then came the biggest battle of all: learning to live, walk and work again.

After two months in hospital, he went home. I went into my bedroom, sat down on the bed, put my head down and just bawled my eyes out. It's the only time, apart from straight after the operation

when I was in so much pain, that I really cried.

I was just so overwhelmed. It hit me that this was now my life missing a leg, missing a hand. I was literally half the man I'd been and I wished that I'd died. At least then I wouldn't have had to go through this torture.

I couldn't take it; it was too huge a concept that I'd live the rest of my life like this. How would I drive or dive or do any of the crazy stuff I did before that I felt had made life worth living? There just didn't seem to be anything left for me; my life as I knew it seemed finished. It was a defeatist attitude and I hated myself for it.

Previously, anything was possible and now everything seemed impossible. But eventually I ran out of tears and, you know what? Nothing had changed. I realised that I could lie there, crying and sooking until the end of my days, but I'd still be sans limbs when it was all over. I'd still be hurting, I'd still be struggling and, since suicide was out of the question, I'd still be alive. So I asked myself again, What the f--- am I going to do now?

I knew struggle and I knew pain they'd been close personal friends at many times throughout my life but now I no longer had any fear of death. In some ways that liberated me. I was free of the constraints that are imposed on us by holding tightly to our mortal coil. And that's how I decided to take it all on myself. I would do my own rehab, I vowed, take myself off the medication, get myself fit and strong mentally and physically. To hell with dwelling on the negative aspects.

Negativity is a vacuum in which nothing else can exist. It has no usefulness, and I decided to ban it from my life. I had no fear of failure because, if I wanted something enough, I'd bite into it and hold on like a rottweiler at a dog fight until it was accomplished. I'd do all that I possibly could not to fail.

Life was tough so all I had to do, I told myself, was to be tougher. That was easy to say but harder to do.

When I emerged from that little breakdown, (my then-girlfriend) Kim (Elliott) looked worried, but I reassured her: 'I'll get used to it, I'm fine, I'm fine.' Of course, I wasn't really fine. I felt like my old life had vanished and what was left had been turned upside down and inside out.

But after feeling sorry for myself for a bit, I was determined to just get on with it and make the best of it all.

I'm determined to do everything myself and only if I really can't do something will I ask for help. I don't like anyone making a fuss. I'd always rather find another way of doing something than give up.

I learnt to hold my toothbrush in the inside of my right elbow while I put toothpaste on. At dinner I'd apologise for my caveman technique as I'd stab a piece of meat with my fork, hold it up in front of me and bite chunks out of it rather than ever having someone cut up food for me as though I were an invalid or a child.

It's hard to hop around with a bowl of breakfast cereal and juice so I'd often have breakfast standing in the kitchen instead. And with grocery shopping, it was easier to do it online.

I started off my rehab at what I thought was an easy pace. I trained every day as hard as I could and, in between my appointments with doctors and therapists, found ways of taking back my life. I had small goals that I constantly updated: do this exercise, walk that far, climb those steps, get up earlier, eat more, focus.

I focused on what I needed, what I wanted and how to do it. Did I need to be functional? No, I needed to be better than functional.

If I was going to be regarded as fit to perform my duties at work and live in the manner that I enjoyed, then I needed to be better than I was and, quite frankly, better than most people around me. I needed to work twice as hard to do things that others could do simply so I needed to practise three times harder to make it look effortless. Train hard, fight easy echoed in my head. Some days I failed. Some mornings I just couldn't bear to drag my arse out of bed and hop around the house, or, later, to put on my prosthetic leg and face the world.

A world I knew would stare and ogle and whisper to their friends: Check that guy out! I just couldn't do it. So I'd lie there and try to get back to sleep with the phantom pains gnawing away at me and my back aching. I'd feel guilty and depressed and sorry for myself all at once.

Then I'd hear a whisper, just quiet at first: That weight's not going to lift itself. And then a little bit louder, Dry your eyes, princess. Then louder still, I'm not here to f--- spiders. And then even louder, Build a bridge and get over it! And, finally, almost screaming, ringing in my ears until I almost yelled it out loud to myself, Harden the f--- up! Being weak was for everyone else, anyone else. I was a f----- soldier and I'd better bloody well act like it. And off I'd go. But in truth I was still in a pretty bad way. I was still smashing a lot of drugs: Temazepam for sleep; OxyContin and Endone, which are morphine derivatives and often referred to as hippie heroin; Epilim, an anti-epilepsy drug to manage the nerve pain I had but which, in fact, did nothing; and antibiotics. I felt like I was in a fantasy land half the time and I hated that, so I started cutting the painkiller dosage back. I felt like I had an enemy to fight but I couldn't fight it if I couldn't focus. I needed to be completely aware of my situation in order to know where to start my recovery and regain my life. But night-time was the worst, and that's when I needed the painkillers just to get to sleep. Sometimes I'd lie in bed for hours, rocking from side to side, close to tears with the frustration of it all.

There were the simplest of things, like sleeping or walking, that I felt I couldn't accomplish. So how the hell was I ever going to drive or do anything that required complicated motor movements? Eventually the drugs would kick in and I'd be granted dreamless, painless bliss.

There are times, of course, when I curse the shark that, in just a few mad seconds, completely altered the course of my life.

But then if it hadn't been a shark, it might have been that dog who mauled me when I was younger, any one of my many motorbike crashes, a stray bullet in the army or, with clearance divers now deployed in Afghanistan to dispose of Improvised Explosive Devices and unexploded ordnances, any incendiary device.

I've seen in others, and learnt myself, that the human body can endure more and perform better than we might ever give it credit for.

But it's not the body working alone. The body is just the nail being driven in. The mind is the hammer, the driving force that will push a person far beyond their own expectations and on to success.

I think what stops other people is that they fear the act instead of focusing on the outcome. Life is here to be lived. And with the right attitude and willingness to deal with the hurdles, it can be bloody awesome.

Extract from *No Time For Fear* by Paul de Gelder. Published by Michael Joseph (imprint of

Penguin Books), April 18, \$29.95.

**SOURCE:** Courier Mail, <http://www.couriermail.com.au/news/paul-de-gelder-recounts-the-horror-of-his-shark-attack-ordeal/story-e6freon6-1226040237706>



*Shark attack on Navy Clearance Diver  
Footage of Navy Clearance Diver Paul de Gelder being attacked by a Bull shark  
in Sydney Harbour 2009*

### **Swimmers shared Sydney Harbour with seven deadly sharks**

Swimmers who swam in Sydney Harbour will be unnerved by the news that they were sharing the water with seven dangerous bull sharks.

A study has revealed that the seven male sharks were lurking silently beneath the water while tens of thousands of revellers cooled off in temperatures of 30C on Australia Day, the busiest day of the year. The bull sharks, which have been known to attack swimmers in Sydney Harbour, were among 16 fitted with monitoring devices by government scientists in a bid to find out which parts of the waterway they like to congregate in.

Sharks were, however, found throughout the harbour, from the heads in the east to Balmoral in the north and Concord in the west. All of the tagged sharks measured more than 6.5ft long but there were no sightings on that day, said a report in the Telegraph.

One 9ft long bull shark covered 22 miles during the day, visiting several busy spots where hundreds of people were enjoying a dip.

According to government scientists, the news is proof that sharks and humans can co-exist safely in the harbour.

"One could argue that bull sharks may not be the voracious predator we once thought," Dr Amy Smoothery told the Sydney Daily Telegraph.

The sharks were fitted with tags after Paul de Gelder, a Navy diver, lost a leg and hand in a shark attack in 2009 during a training exercise. It was the first shark attack in the harbour for nine years.

**SOURCE:** Kathryn Liston, Aug 26, 2011, <http://travel.aol.co.uk/2011/08/26/swimmers-shared-sydney-harbour-with-seven-deadly-sharks/>

### **I Survived A Shark Attack by Paul de Gelder**

Early one summer's morning, I was taking part in an Australian Navy counter-terrorism exercise, swimming on my back through the waters of Sydney Harbor.

All was going smoothly until suddenly I felt something smack me hard on the leg. I rolled over and looked down... straight into the cold black eyes of a massive bull shark, one of the most ferocious predators ever to stalk the world's oceans.

I peered closer through the murky water and could see it had something in its massive jaws between its teeth. My leg. The next five seconds turned my whole life upside down.

Up to that point, I'd been living my dream. As a member of the Navy's elite clearance diving unit - our equivalent of the US Navy Seals - I'd travelled the world with the forces, taken part in joint Australia-US military exercises, and spent as much time as I could in my beloved ocean. At 31 years old, I couldn't imagine a more perfect existence.

But then came the shark, and the fight for my life. My first instinct was to slash at the shark's eye, but as soon as I went to raise my right hand, I realized I couldn't; the shark had clamped its jaws over my wrist too. I then tried to jab it in the eye with my left hand, but on the angle it was holding me, I couldn't reach. Instead, I madly lunged to heave its head off me, but that only served to push

the teeth of its lower jaw deeper into my flesh. Finally, summoning every iota of strength I possessed, I punched it on the nose, as hard as I possibly could. Enraged, it started shaking me, its teeth working like a saw on my limbs. That's when the pain started. Then it pulled me under the water, we surfaced, and it pulled me down again, shaking me like a rag doll.

Then, I figured, it must have lost its grip because I was free. I tried to swim away as fast as I could, but looked up and realized my hand was missing. I couldn't feel my leg either. But after what felt like the longest swim of my life, a Navy dinghy arrived and my mates pulled me from the water. They laid me down on the floor of the boat where, technically, I died before they brought me back to life, and then taken straight to hospital, hovering between life and death.

When I finally came round again, I was relieved to see my leg was still there. But not for long. The doctor broke it to me that the shark had taken all the back of my thigh, including the sciatic nerve, the biggest peripheral nerve in the body. As a result, that leg, were I to keep it, would always be useless. If I let him amputate it, however, I could be given a prosthetic, and I could be running again within a year.

I told him to take it and turn me into a Terminator... or at very least, Steve Austin, the Six Million Dollar Man. Clearly the morphine and ketamine painkillers were doing their job and then some. At that point, I realized that I could either curl up in a ball and harp on about my woes and how hard life is, alienate everyone I loved and have a shit life. Or I could brace up, make the very best of what I had left, and build a new life for myself. Put like that, it felt like a no-brainer.

The day after the op to take my leg, the doctor was shocked to come into the ward and discover me doing chin-ups on the bar above my bed with my good arm. I'd also persuaded my friends to bring me in weights, exercise resistance bands and protein powder so I could start training immediately for my recovery. I found taking charge of such a difficult situation, and being immediately proactive, was the best way for me of coping with what had happened. There was no way I was going to be a passive victim.

I learned that my mental recovery was crucial. The most important thing was how I felt about myself. If I was optimistic, and surrounded myself with strong, positive, encouraging people then I convinced myself I'd always find a way of accomplishing things.

Of course, there were tough times. The first day I came out of hospital, it really hit me how much I could no longer do, like put toothpaste on a brush and tie my shoelaces. But instead of worrying about those things, I focussed instead on the things I could do. The stuff you can't do any more? Forget it. Move on to the things you can do and then, later, when you're more prepared, go back and learn to do the stuff you can't, such as learning to write with my left hand.

Besides, I knew it could have been much worse. I could still function to a high degree. There were people out there in the world with much greater problems who had to rely on others to cope. I was comparatively lucky.

One of the biggest challenges was convincing the Navy that I could still do my job. At every stage, I had to prove to them I was capable, and I felt the need often to show I could be twice as capable as some of my colleagues. That was pretty life-affirming too!

But I really wanted to go back into the water. I'd grown up swimming in the ocean and had always loved it. I felt at home there. It was a big part of my life.

Some people asked me if I wasn't afraid that I'd be attacked again by a shark, but I'm not. I'd have

to be pretty unlucky to be attacked again, and likely as not the next shark will get a mouthful of a prosthetic. I've even spoken at the United Nations in favour of shark conservation.

Besides, now I know I've faced pretty much the worst that life can throw at me, and survived, and thrived. I know the human body can endure much more than we give it credit for, and with determination and the right attitude you can achieve anything you set your mind to. I'm looking to the future with confidence and optimism.

Paul de Gelder's book, *No Time For Fear: How a shark attack survivor beat the odds* [Penguin, \$22.00], is being released in the US the last week of April.

**SOURCE:** Huffington Post, March 28, 2012, [http://www.huffingtonpost.com/paul-de-gelder/author-i-survived-a-shark\\_b\\_1383715.html](http://www.huffingtonpost.com/paul-de-gelder/author-i-survived-a-shark_b_1383715.html)

### **How Shark-Attack Survivor Got Fitter**

Twenty-four hours after his right leg was amputated, Paul de Gelder went back to exercising.

"The doctor came in and found me doing one-armed chin-ups on the bar in my bed. He was not very happy about it," Mr. de Gelder says.

Paul de Gelder lost his lower leg and forearm as a result of a 2009 shark attack.

Three years ago, Mr. de Gelder, a diver in the Australian navy who lives in Sydney, was testing detection devices for a counterterrorism exercise in Sydney Harbor when a shark seized hold of his right leg. "It started shaking me, took me underwater," he says. He tried to fight the shark off, even delivered a few punches, but even Mr. de Gelder's military training wasn't a match for the shark. After a few seconds, the shark let go and disappeared, allowing Mr. de Gelder to swim to a nearby safety boat.

When he was pulled out of the water, his shipmates saw significant damage. The shark had torn his hamstring and the back of his thigh. His right arm was gone up to the elbow. After a week in the hospital, he made the decision to have his right leg amputated.

While in the hospital, Mr. de Gelder resolved to be as fit and active as ever. During his nine-week stay, family and friends brought weights and tension bands so he could train from bed. Eventually, he was outfitted with prosthetic limbs specially designed for active lifestyles—an X2 leg that cost \$150,000 and an I-LIMB Hand that cost \$60,000.

"Without fitness in my life, it really doesn't seem to be much of a life," says Mr. de Gelder, now 35. "Instead of getting back to where I was, I thought, 'Why don't I be better than what I was?' " Last month, Mr. de Gelder transferred from full-time service as a dive instructor to a reserve status so he could promote his book, "No Time for Fear," and deliver motivational speeches.

#### **The Workout**

His fitness regimen includes a gym workout, below, six days a week. 'Instead of getting back to where I was, I thought, "Why don't I be better than what I was?" '

Mr. de Gelder wakes up at 5 a.m. every day. Three to four times a week, he walks on the beach

for about five kilometers, or just over three miles. The 45-minute walk is a full workout on its own, he says, since it requires about 80% more energy to walk with a prosthetic leg than with two legs. "Going for a nice long walk is perfect because I can't do all that cardio exercise," he says.

If he's not walking in the morning, or when he has a break in his schedule, Mr. de Gelder goes to the gym. Finding a comfortable regimen required "a lot of trial and error," he says. The prosthetic leg throws off his balance, and it prevents him from doing certain standing exercises, such as lunges and squats. To warm up, Mr. de Gelder does 10 minutes on the elliptical machine, then lifts weights for about an hour, doing four to five sets of eight to 12 repetitions for each exercise. He focuses on one body part for each day of the week—legs, shoulders, back, chest, biceps and triceps—with one day off. Mr. de Gelder also practices Pilates-type exercises, what he calls his go-to core workout, for 20 minutes two to three times a week.

### **The Diet**

"I don't like any vegetables, and I'm not a fan of fruit," Mr. de Gelder says. To compensate, he makes a mean smoothie in the morning that combines everything from strawberries to egg whites to protein powder. "It's the best way to start the day." For lunch, he receives ready-made meals from a food-delivery service or stops by a local Thai restaurant that serves "healthy, good-for-you takeout." For dinner, Mr. de Gelder eats lots of meat, including chicken, beef and kangaroo, with a salad thrown in. Eating five to six meals a day, Mr. de Gelder says he doesn't deprive himself. "I eat when I'm hungry, and I'm always hungry."

Although Mr. de Gelder has a soft spot for ice cream, he tries not to overindulge. Sometimes, though, it is just too tempting. "After my last trip to Italy to see my girlfriend, I was feeling a little down. I had a box of Magnum [ice cream bars] in the fridge and thought, 'I'll just have one.' And then I had another. I was three deep, so I just ate the whole box."

### **The Gear**

Mr. de Gelder has six pairs of Nike Free Run running shoes (about \$165 a pair), because they are flexible and light. "Good for a prosthetic foot," he says. Other costs are relatively low—a gym membership that runs about \$57 a month and "whatever's comfortable" in the way of clothing.

### **Moving Forward**

Rehabilitation has been a continuing, painful process. "Even now, my body is still adapting, but with patience and perseverance, it keeps getting better and better," he says.

Mr. de Gelder's activities have been mostly land-based, but eventually he would like to get back into the water. "I miss the things I love doing, diving and swimming and surfing," he says. "I was an extremely high-functioning person, and I just want to remain that way."

**SOURCE:** Sanette Tanaka at [sanette.tanaka@wsj.com](mailto:sanette.tanaka@wsj.com), Wall Street Journal, July 17, 2012, [http://online.wsj.com/article/SB10001424052702303644004577520803895825944.html?mod=googlenews\\_wsj](http://online.wsj.com/article/SB10001424052702303644004577520803895825944.html?mod=googlenews_wsj)