

BackscatterXTerminator

by Kirsty Andrews

My thanks to UWP magazine for asking me to try out and review an incredibly exciting development in image editing for underwater photographers: BackscatterXTerminator. This innovative product, a plugin for Photoshop, uses AI technology developed initially for astrophotographers, and repurposed for underwater image use; a joint effort by RC Astro, Erin Quigley of GoAskErin.com and her colleague Bruce Warner.

In the decade or so that I've been shooting, Adobe have made regular evolutionary updates to their available options for cleaning up imagery. The relatively unsophisticated clone stamp tool has over time morphed into a selection of patch and spot healing tools, including content aware fill. These, combined with judicious use of something like a dust and scratches filter in extreme scenarios, meant that options were available to the photographer with time on their hands. And time is the key thing as I know I'm not the only one who could spend hours 'polishing' favoured images this way, or trying to rescue one where backscatter was an issue.

Compared with these small steps, the BackscatterXTerminator tool is utterly revolutionary. With one click and merely a few seconds' processing time, it manages to isolate backscatter while leaving underlying image details unaffected – something that would have been very difficult and time-consuming to try to achieve manually before.

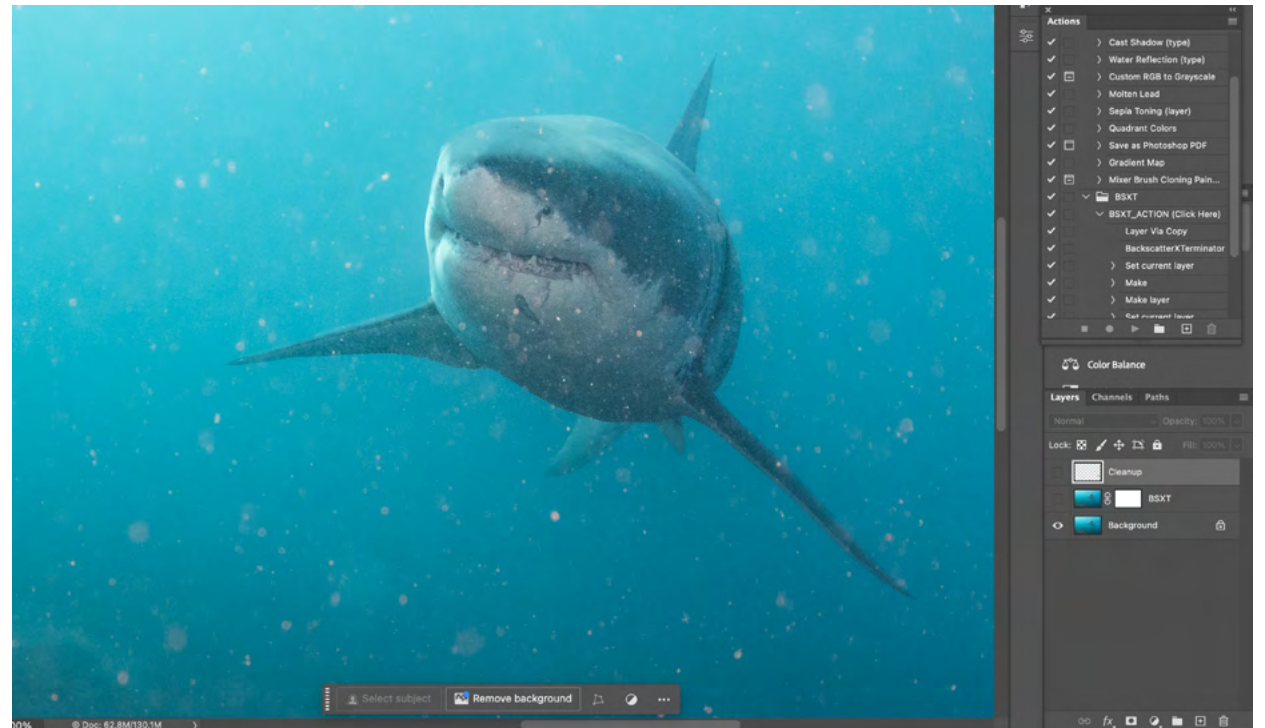
I do a lot of diving in the UK and our rich temperate waters can be full of particles, so even without lighting errors (and I'm not immune to these!) wide angle shots take a bit of cleaning up. In a matter of seconds, BackscatterXTerminator removes 95% of the problem, and doesn't leave artifacts or impair image quality while doing so.

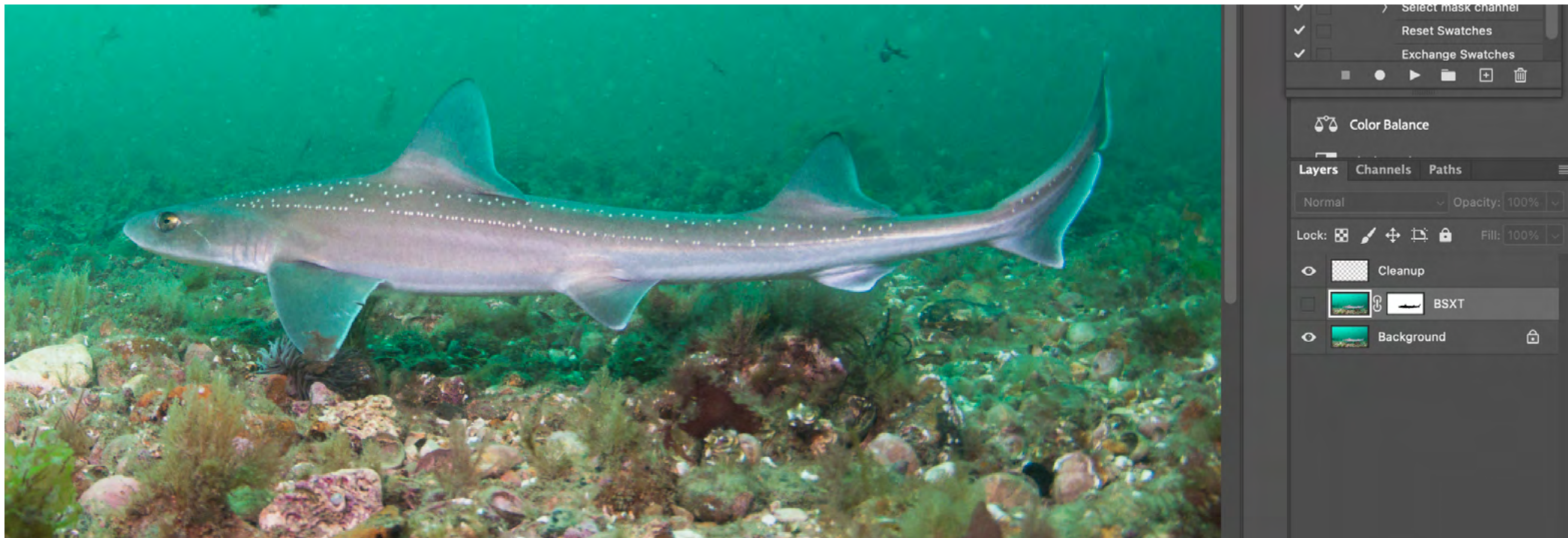
Baygitano wreck shot. Top image is the original and the bottom image is corrected.





It's not just UK underwater shots where this is an invaluable tool. Shooting this great white shark in South Africa, some backscatter was inevitable as I sought to light the large pelagic animal through less than crystal waters. The BackscatterXTerminator tool cleaned it up in seconds. I'd previously laboriously removed backscatter from this shot using other tools, and BackscatterXTerminator did a much better job, much quicker.





One example of BackscatterXTerminator being over-jealous was with this picture of a starry smoothhound shark – the software removed the patterning on the shark. It was an easy fix by masking out the impacted areas. The layer mask tool is created as part of the BackscatterXTerminator programme and is easy to use even for occasional Photoshop users.





Original image



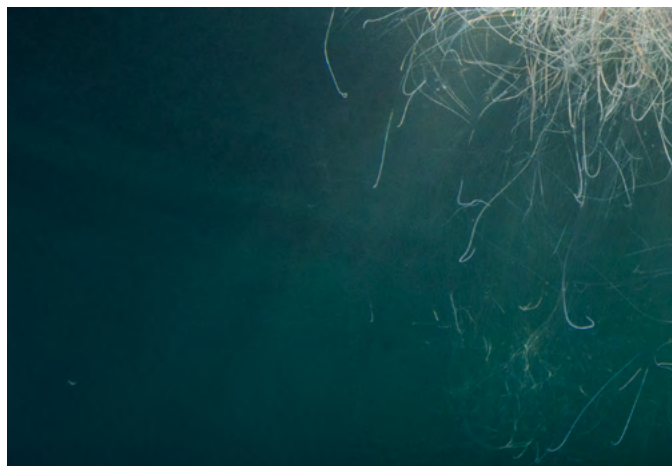
Full AI correction



50% AI correction

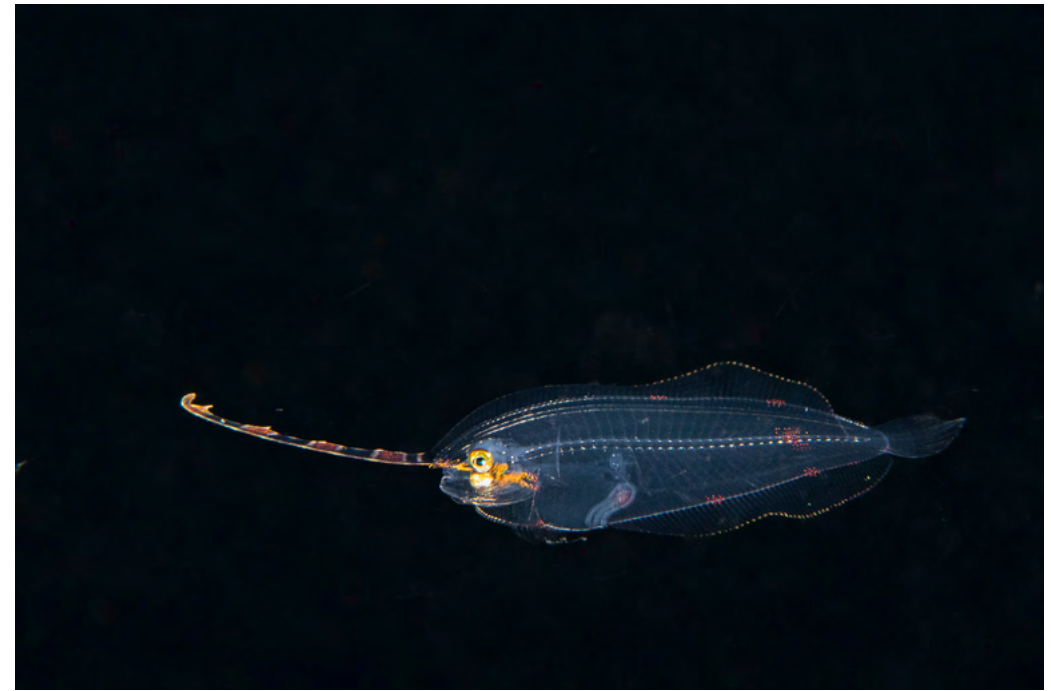
Another clear use case is black water photography, where the premise of the entire diving set up is to attract plankton to your light sources and therefore there will be particles in the water. With a click of a button, the image is clear, even with subjects that are translucent in parts, the software works amazingly, which was tricky to do manually. If, like me, you think a bit of backscatter adds a welcome reality to certain scenes, you can tone down the impact of the tool using the opacity slider – the visual impact of the backscatter is minimised within

the image but it is still present, keeping truer to what was originally captured, if that is your creative wish. For example, this bobtail squid was shot at night over a sandy seabed: the backscatter is, for me, part of the image, but it was interesting to see the effect of keeping it in but less emphatically. This may also be a benefit if a completely clean image looks unnatural to the naked eye; as with all editing, it's a matter of taste, but the ability to tone down the effect of the plug-in may help to those who find its effect 'too much.'



I searched around for a subject which didn't work so well, and this was the nearest 'fail' – a very challenging edit, this backlit lion's mane jellyfish with sunrays coming through. The software was fine with the sunrays and removed the backscatter but also quite a lot of the jellyfish's filaments initially; I painted

back in but this leaves backscatter in the areas around the jellyfish: a more painstaking approach would be needed to spot-heal the two (a reminder of the world before BackscatterXTerminator existed).



If you see areas where there is plankton which the software has not immediately removed. Erin and team have planned for this; if you operate the tool as suggested by running the simple BackscatterXTerminator programme, it creates a layer with layer mask so you can paint out unintended consequences of the software, and also creates a clean-up layer so you can finish the job yourself manually. I don't object to this as it's so much quicker than before and feel the balance is right in what the AI decides to remove.

I should note that there are minimum system requirements specified for use of this tool. On my

3-year old MacBook Pro, it worked speedily, in less than 10 seconds on average, but trying it on an older system it was more like a couple of minutes to process a 20MB file.

As instructed in the GoAskErin tutorial, I applied the tool at a relatively early stage in the editing process, only after basic exposure and tonal adjustments, and then finished off in Lightroom.

This new tool isn't 100% accurate in all cases, but it's certainly very close to it and is absolutely a game-changer which will save you time and effort in your workflow, especially for shooters in temperate waters or black-water background appreciators.

Introductory Price of \$179.95 includes 1 perpetual license that can be installed and activated on up to two computers – Mac or PC plus there's an exclusive Bonus: A comprehensive step-by-step video tutorial by Erin Quigley.

There is also an option for a FREE 48 hour, fully functional trial of BSXT. Try before you buy.



Kirsty Andrews

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