



A high-top sneaker created out of salmon leather by Jonathan Morss. CREDIT: JONATHAN MORSS



Swimming with the tide

Footwear brands are shunning regular materials and turning to salmon, cod and other fish to add texture and strength to their designs.

An alarming amount of fish skin finds its way back into the oceans or into landfill, discarded by fish factories and the fishing industry, but footwear designers are among those trying to put the by-product to use. Studies have shown that filleting produces about 67% of waste, which is polluting due to the high amount of organic material. However, its skin was until a decade or so ago seen as a difficult product to work with – the tanning process was specialised and the material it produced often too hard.

But advances in processing, not least brought about by a project spearheaded by Spanish footwear association Inescop, have resulted in a strong and supple material that adds texture and quality to footwear – the task seems now to be convincing the public of its appeal.

“I love the texture of fish skin and the leather absorbs colour in such a wonderful way,” says Janan Leo, founder of footwear brand Cocorose London. “I also love the juxtaposition of how it looks so fragile and delicate but is in fact a robust and durable material to use.”

The London-based designer has grown her ballet pump business from around 500 pairs per year four years ago to supplying 25,000 per year to retailers across the globe. She chose fish leather from China for her latest collection: “The skin added

that extra bit of interest to what could have potentially been a rather classic ballerina.”

Alternative exotic

One of the largest suppliers of fish leather is Atlantic Leather, a specialist tannery located in northern Iceland, and a recent exhibitor at Le Cuir a Paris. Its proximity to the oceans and domestic fish farms gives it a steady supply of product: salmon from local rivers or farms, cod and wolffish caught off the country's coast, and it imports Nile perch from Kenya, Tanzania and Uganda. “Demand has been increasing – people find it interesting, and they also like the idea of sustainability,” says Gunnstein Björsson, Atlantic's CEO. The tannery has seen output jump from 15,000 square feet of leather in 2003 to 106,000 square feet in 2010 and it counts the world's biggest fashion houses, including Dior, Gucci, Prada and Salvatore Ferragamo, among its clients.

UK-based footwear brand Mors is also a client. Jonathan Morss, the head designer and founder of the company, says fish leathers offer a tactile quality that is difficult to replicate with other materials. “Fish skin has some amazing colours and textures to it,” he says. “You can see the scales and it has a great feel. It's also an exceptionally strong leather, while looking delicate.”



He created a high-top sneaker from electric blue and black/blue salmon leather and a low-top from dark blue salmon, as well as a design in the local wolffish, using its natural colours. “Wolffish has natural spots and looks really interesting for a statement piece,” he says. “Salmon has probably the best combination of interesting textures and wearability – it can be used as a replacement for reptile skin.”

And that is where most designers are pitching fish leather: as an alternative to snake and crocodile. At around two skins per pair for Mors’ styles, it is not a mass-market option – the client pays more for quality, and the shoes are handcrafted in Portugal or the UK. “It’s an expensive process and as such the end result has a high price, so it’s not really for the mainstream market at the moment,” adds Mr Morss.

Environmental gains

Different skins offer different qualities but all go through the same basic tanning process, which takes about a week. The skins are then dyed, stretched and dried, softened, and prepared for the final finish. Fish leather is stronger than most other leathers and has more resistance to folding and creasing. The carbon footprint is also lower: it requires fewer chemicals in the tanning process and produces less waste.

“Our tanning and coloration processes require abundant hot water, which means such production would generally be considered energy-intensive and even harmful to the environment,” adds Mr Björsson. “However, we use only geothermal hot water, which is an efficient, environmentally friendly and renewable resource. In addition, all electricity comes from a hydroelectric power station.”

The eco story is a strong pull for designers and could, in future, be one of the key selling points to consumers. High-end shoe designer Manolo Blahnik created a tilapia skin shoe in 2011 as part of an ‘eco range’. Tilapia is a freshwater fish that originates from Africa and the eastern Med but which is considered one of the world’s most invasive alien species because of its ability to displace native species and restructure aquatic ecosystems. However, it is also a valuable source of protein, which is why it was aggressively introduced across the globe. If these communities could also make use of the skin, the value to them would increase substantially.

Brazilian apparel brand Osklen produced a tilapia shoe collection, as well as a range featuring salmon and piracucu, one of the largest freshwater fish in the world. Its domestic counterpart Green Obsession has also built a network of raw materials suppliers, tanners and artisans to make footwear and bags from tambaqui and tucunaré. Using the larger fish skins is something tanners, designers and the food industry have been looking at seriously for a few years. In South America, piracucu and other species of river fish are significantly larger than their European counterparts – potentially offering more leather, thus more shoes per skin.

New skills

The authorities in the province of Chubut, in the south of Argentina, have recently set up a series of workshops to help people in fishing communities learn to make leather from the skins. One of the organisers, Fabián García, explained to local

media that the authorities have high hopes of being able to make use of a material to which Chubut has substantial access.

“What we want is to be able to make something of the waste products from our local fish processing plants,” he says. “We are very interested, for instance, in seeing if we can make leather from hake skin. We hope to set up a whole value chain from this. Huge quantities of the material are being thrown away every day, and this is causing us quite a serious waste management problem.”

Similarly, researchers from the National Institute of Industrial Technology (INTI) of Chubut have been working with the institutes’ leather centre on tanning perch, rainbow trout and Patagonian silver smelt in a project funded by Department of Fisheries of Chubut. “The perception of the ‘novel status’, the texture, the applicability of dyes and the potential introduction of blends provide the appeal,” says a spokesperson from INTI.

With ongoing research and a more plentiful supply of tanned skins, prices should come down as designers more readily incorporate fish leather into their collections. “A well-known bag designer showed me a salmon skin bag she’d had as her everyday bag for 10 years and it looked almost new,” says Mr Morss. If consumers can eventually be convinced of this combination of luxury and durability, a freely available by-product will find a new lease of life. ☺

Cocorose offers ballet pumps created from exotic fish leathers.

CREDIT: COCOROSE

