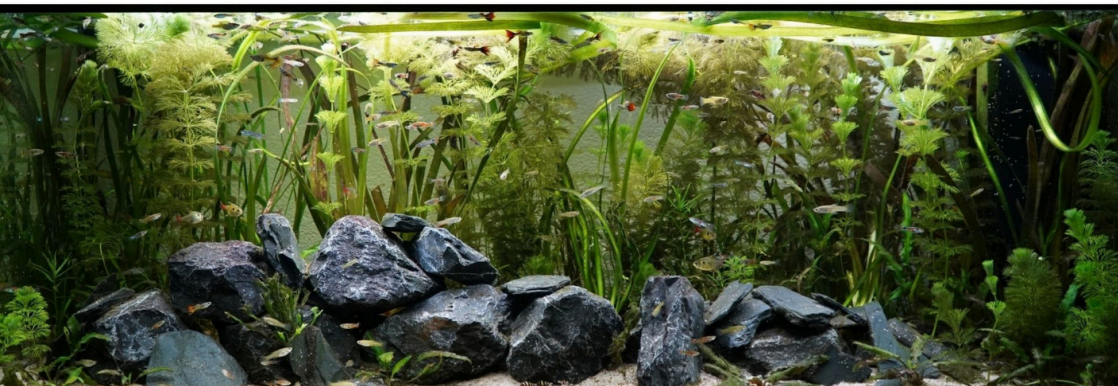




Edgars Fish Channel presents

LOW-TECH PLANTED AQUARIUM

A Beginners Guide to the World of
Planted Freshwater Tanks

Edgars Fish Channel presents

Low Tech Planted Aquarium

A Beginners Guide to the World of Planted Freshwater Tanks

by

Etienne “*Edgar*” Seitz

Seitz Ventures UG (haftungsbeschränkt), Kirchfeldstrasse 50, 76706
Dettenheim (Germany)

Low Tech Planted Aquarium

A Beginners Guide to the World of Planted Freshwater Tanks

by Etienne “Edgar” Seitz

Published by: Seitz Ventures UG (haftungsbeschränkt),
Kirchfeldstrasse 50, 76706 Dettenheim (Germany)

Should this publication contain links to third-party websites, we assume no liability for their content, as we do not adopt it as our own, but merely refer to its status at the time of initial publication.

All rights reserved. All reproduction or use of this work is forbidden without prior written permission from the author or publisher.

Copyright © 2026 by Seitz Ventures UG (haftungsbeschränkt), First Edition

Includes table of contents, pictures, glossary, list of animals and list of plants i have kept in the past years.

Website: <https://edgarsfishchannel.com/>

YouTube: <https://www.youtube.com/@edgarsfishchannel>

Instagram: <https://www.instagram.com/edgars.fish.channel>

Newsletter: [E-Mail Newsletter Sign Up](#)

Table of Contents

Table of Contents	3
1. Introduction	5
My Approach to the Hobby	5
The Ecosystem Approach	6
What You Will (and Won't) Find in This Book	7
2. Rethinking the Aquarium Industry	9
Why Pay Retail?	11
3. Before You Buy Your First Tank	12
Why You Can't Just Fill a Bowl with Water	12
Size Matters: Why Bigger is Easier	13
Why you need live Plants, not Plastic Plants	14
4. Buying your First Aquarium	18
Choosing the Right Tank & the Right Tank Size	18
Water Volume and Stocking Density	20
Weight Distribution on your Fish Tank Stand	24
Essential Equipment: Keep It Low-Tech	26
Internal vs. External Filters	29
A Quick Note on Renting and Insurance	31
5. Setting Up your First aquarium	32
Washing and Positioning Your Tank	32
Substrate: Alternative to Overpriced Soils	34
Why Plants Need a Nutrient-Rich Base Layer	37
Placement Tips and Substrate Depth	40
Capping the Soil with a Sand / Gravel Layer	41
Foraging Your Own Hardscape	43

Stone Budget Hack: Wholesalers	46
Planting Epiphytes: Protect your Rhizomes!	48
Filling your Tank Without Ruining Your Scape	50
Planting Root-Feeders - Flooded Tank Method	52
6. Water Chemistry and Biology Made Simple	54
Matching Your Livestock to Your Water Chemistry	57
Choosing Species That Match Your Local Water	58
Selecting Healthy Stock at Your Local Fish Store	62
Step-by-Step Acclimation - Floating Bag	64
Step-by-Step Acclimation - Transport Bucket	65
Feeding Fish: Timing and Technique	67
Monthly Tank Maintenance	69
Propagating Stem Species	71
The Local Hobbyist Advantage	72
7. Conclusion: Your Low-Tech Ecosystem Awaits	74
I. Glossary - Important Terms & Definitions	76
II. Animals i have kept	79
III. Plants i have kept	81

1. Introduction

My name is Etienne, though my friends all call me Edgar. I've been keeping fish and aquariums for about twenty years now. Over those two decades, I've built countless setups, kept and bred a wide variety of species, and always held one main priority above everything else: providing my fish with an environment that recreates their natural habitat as closely as possible.

Achieving that balance comes down to the details—picking the right substrate, getting fish & plants that work well in your water parameters, proper feeding habits, establishing live plants, and choosing a compatible mix of fish. Even after twenty years, I wouldn't call myself an all-knowing expert; in this hobby, you never stop learning. But over the last few years, I learned a lot.

You might already know me from YouTube or Instagram, where I run [Edgar's Fish Channel](#). There, I share my builds, experiments, and daily aquatic adventures with an incredible community of fellow hobbyists. If that's how you found your way to this book, welcome back! If you're new here, feel free to check out the channel links in the book resources.



Picture 1: Hi there!

My Approach to the Hobby

In these pages, I want to share my personal approach to designing, setting

This picture shows me (the author) in front of my 240L planted tank with Vallisneria Plants, Guppy Fish & More

up, and maintaining planted freshwater aquariums. My goal is simple: to show you how to build a balanced aquatic ecosystem that thrives for years with minimal maintenance, minimal water changes, and zero unnecessary fish losses.

I hope you enjoy reading this book and find it helpful for your own tanks. If you have any questions, spot an error, or have suggestions to make the next edition even better, please don't hesitate to reach out. You can find my contact details on my website and on my [YouTube](#) channel. I'd love to hear your thoughts and read your reviews.

The Ecosystem Approach

Another core principle behind how I build aquariums is heavily inspired by the work of Diana Walstad, author of *Ecology of the Planted Aquarium*. Her main premise is simple yet important: the aquarium itself is the central living system. It isn't just a tank holding fish—the livestock, plants, substrate, and microscopic life form an interconnected, self-regulating ecosystem.

Plants are the backbone of this system because they act as dynamic biological filters. They absorb **toxic ammonia**, **nitrite**, and **heavy metals** directly from the water column.



Picture 2: Juvenile Platy Fish

This juvenile Southern Platyfish (*Xiphophorus maculatus*) eats some biofilm next to a bladder snail (*Physella acuta*) on a patch of algae and plants. Picture taken in 2025 in my South America Tank.

Even decaying plant matter plays an important role in this cycle. As organic material breaks down, it releases humic substances into the water, which bind with heavy metals and neutralize their toxicity to fish.

If you want to dive deep into the exact science behind these processes, I highly recommend Diana Walstad's book. It's a classic for a reason, and I really enjoyed reading it. That said, it is rather technical & scientific.

Having earned a master's degree in Bioeconomy from the University of Hohenheim in Germany, my foundation in chemistry and microbiology concepts made it much easier to digest all the formulas and structural diagrams. For a beginner, though, that level of academic detail can be overwhelming. That's why the underlying book breaks down the most crucial concepts into simple, everyday terms—so you can easily follow along without needing a background in chemistry or biology.

What You Will (and Won't) Find in This Book

Because I match my livestock to my local tap water, my experience leans heavily toward livebearers like Endler's guppies, platies, and mollies. I've also had success with dwarf cichlids like *Apistogramma*, tetras (yellow phantom tetras and ember tetras) a wide variety of snails—including nerite, ramshorn, bladder, and assassin snails—and invertebrates like *Neocaridina davidi* shrimp and amano shrimp.

It's important to note that this book exclusively covers animals and plants I currently keep or have successfully kept (& in some cases bred) in the past.

I don't write about things I haven't experienced firsthand. If you are looking for a specialized guide on keeping Discus, setting up a marine reef, raising axolotls, breeding bettas, ... you are in the wrong place.

While I've kept fish for decades, I only recently started filming and documenting everything I do. Because of that, I'll occasionally feature photos provided by our incredible community of over 8,000 followers across platforms (as of September 2026). Whenever I use an image from a fellow hobbyist or friend of the channel, I will always credit them directly in the photo caption.

I highly recommend reviewing the list of covered species in the coming appendices (Chapters II and III); if my livestock choices don't align with your goals, there are plenty of other great resources out there better suited to those specific animals.



Picture 3: Endlers Guppy snacking on Biofilm

One of hundreds of Endler's Guppies (a hybrid between *Poecilia wingei* and *Poecilia reticulata*) that live in my planted 240L Community Tank

2. Rethinking the Aquarium Industry

Before we get into the details, I want to take a step back and question whether most of the products pushed in aquarium shops today are even necessary. If you walk into a local fish store (anywhere in the world) right now to buy a few live plants, chances are an employee will try to convince you that you need a whole arsenal of gear.



Picture 4: My 200L “South America” Aquarium

9 different animal species and 13 different plant species live in this tank. I have never added liquid fertilizers or CO2 injection to this tank and it has been running for over a year now. The picture you see above is 2 weeks after setup. Today, it's completely covered in plants..