

NYSDA News Feb

GALLER

Everyone Needs a Good Hygienist

Even fish good cleaning once in a while.

Jeffrey Galler, D.D.S.

When patients decide to visit us for a timely prophylaxis, they generally have no trouble finding our dental offices. Street signs, maps, written directions, GPS and discreetly displayed professional signs help guide them to the right location.

What does a fish in need of a cleaning do?

Although it's hard to imagine that fish, swimming in water 24 hours a day, can get dirty, they too, surprisingly, need regular cleanings, almost daily.

In their underwater environment, fish attract a variety of parasites that grow on their outer skin, scales, gills and inside their mouths. Left unchecked, these parasites multiply, thrive and harm their host. This is a perfect example of a one-sided type of symbiotic relationship, where the parasites benefit from their relationship with the fish, but where the hosts suffer.

Fortunately for the fish, they, like our conscientious dental recall patients, are able to get routine cleanings. Recreational scuba divers are familiar with the phenomenon; in some unknown fashion and for some mysterious reason, certain spots on the reef become designated as "cleaning stations." There, fish actually line up patiently to get dead skin, parasites and intraoral food debris cleaned off by smaller fish or by tiny shrimp.

In this form of symbiosis, known as mutualism, both creatures benefit without harming one another: The host fish gets a free cleaning and rids itself of parasites and meal remnants; and the cleaning fish gets a free meal. Implicit in this relationship is the inherent "agreement" that the larger fish will not eat the cleaner during the prophylaxis.

For a visiting scuba diver, observing this wonder of nature is a treat. While some divers will often swim right past an underwater cleaning station without even realizing it, sharp-eyed, attentive divers will find their vigilance rewarded. There, divers can observe large, motionless fish, such as groupers, floating stock-still with their mouths and gills wide open, while tiny shrimp crawl around and pick up and remove dead skin, parasites and food debris.

Usually, reef fish will scoot away when a diver approaches. At a cleaning station, however, with underwater denizens lined up patiently, a diver can come quite close to a fish.

Dentists wish their patients would be as placid and uncomplaining as these fish.

When I discussed this phenomenon with one of my hygienists, she remarked, “I would be a terrific underwater hygienist. In high school, all my grades were below c-level.”

*Dr. Galler, a general dentist from Brooklyn and frequent contributor to the NYSDA News and New York State Dental Journal, is certified as a master diver by the Professional Association of Diving Instructors. Dr. Galler's inspiration for this article came from diving vacation in*

### **Captions:**

Photo #1 – Cleaner wrasse approaches mouth of large cod.

Photo #2 – Spotted moray eel hosts intraoral cleaner shrimp.

Photo #3 – Although this coral grouper with mouth wide-open looks surprised, its body language signals its readiness to be cleaned by approaching **bluestreak** cleaner wrasse. *(Photo by Stephen Frink)*

Photo #4 – Reef lizardfish rests on its pelvic fins while being cleaned by bluestreak cleaner wrasse. Larger fish flares its gill openings to indicate accessibility and acceptance to smaller fish. *(Photo by Stephen Frink)*

Photo #5 – Orthodontist's nightmare, this great barracuda has “agreed” not to make lunch out of its diligent neon goby hygienist.

Photo #6 – **Bluestriped** grunt on right is being cleaned by **four-eye butterflyfish** on left.

Photo #7 – Grouper welcomes several meticulous clear wrasse hygienists at work. *(Photo by Nick Bartol)*

Photo #8 - Cleaner shrimp assiduously removes parasites from blue tang's gills. (Photo by Nick Bartol)