

BASICS OF BETTER UNDERWATER PHOTOGRAPHY

TIPS FOR SHOOTING VIDEO

OPTICAL OCEAN SALES
UNDERWATER PHOTOGRAPHY EQUIPMENT

MOTION

CHANGING YOUR APPROACH

Some scenes that don't make good still photos can actually make great video!



Examples:

- ▶ You just can't get close enough to the subject to capture a really good photo.
- ▶ The visibility isn't the best.
- ▶ You would like to show behaviors, or tell a story.
- ▶ You want to show non-diving people how cool it really is by adding motion.

If you have been doing underwater photography, and want to venture into underwater video – here are some practical tips.



CAMERA FORMATS

CHOOSING WHAT WILL WORK FOR YOU

Video options have come a long way, many cameras are capable of shooting good quality video.



Super Compact



Compact



Mirrorless



DSLR



Consumer Camcorders



Professional
Digital Video

VIDEO

TUNNEL VISION

While shooting video you can get tunnel vision.

- ▶ You have to keep your eyes focused on your view screen for much longer periods of time – while also being aware of your environment – using your peripheral vision.
- ▶ This is especially important when you are moving with current or swimming while shooting video.



Having a dive buddy that does not carry a camera is the best option.

BEST

DIVE BUDDY

When shooting video, it is much easier to focus on what you are doing – if you have a dive buddy that you can rely on to keep an eye out for you (stick with you) – instead of the other way around.



Shooting video requires longer periods of time focused on your camera – that makes it more difficult to keep an eye on your buddy.

BIGGER FILES

MEMORY & BATTERY HOG

Video takes up much more memory and battery power than taking still photos! Make sure you are prepared.



- ▶ Use at least a 16G or bigger card
- ▶ Empty the card or change cards at the end of every dive day (have a good storage device)
- ▶ Bring back-up memory on your trip
- ▶ Bring a back-up battery on your trip
- ▶ Have at least one extra of each with you at the dive site (in a water proof container)

UW VIDEO

TYPICAL VIDEO RIGS WITH LIGHTING

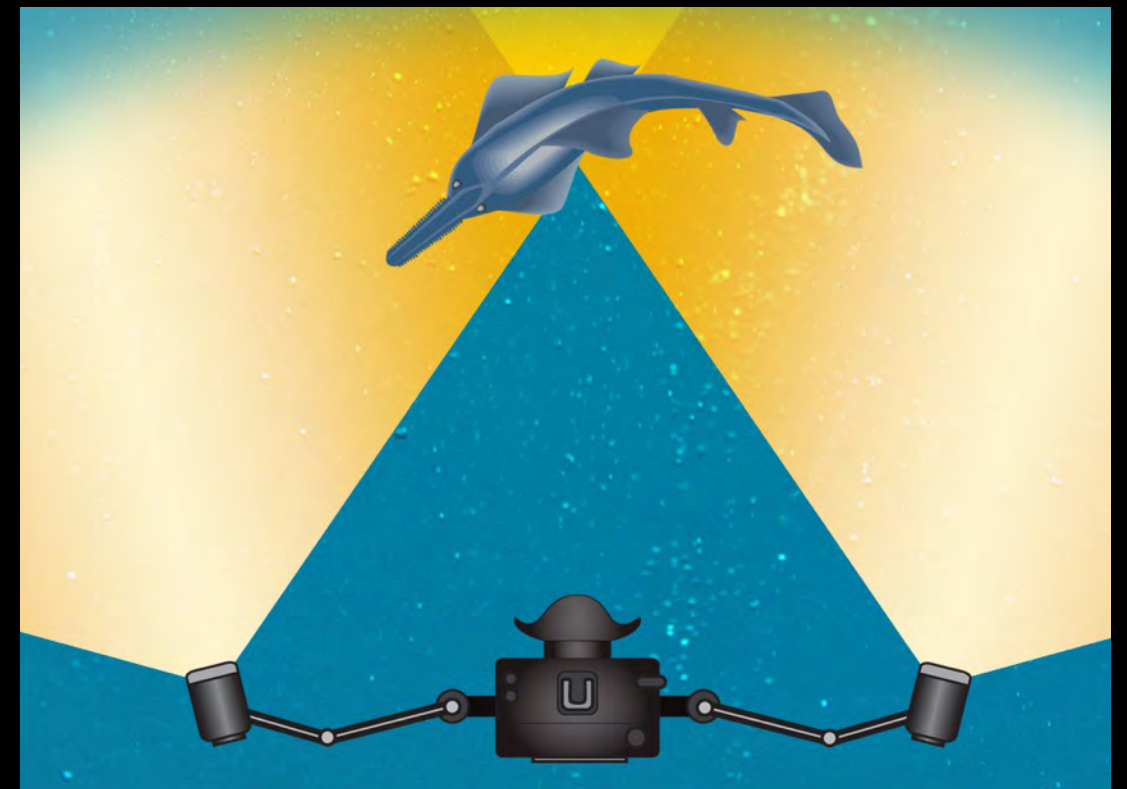
Video lights are powerful – starting at around 1000 lumens on up to 10,000 lumens or more! Besides lumens you should pay attention to the light's color balance measured in degrees Kelvin (K). Daylight white balance is considered to be 5,000K. Another specification to look for is a high Color Rendering Index (CRI), which is a measure of how faithful lights render colors in comparison against natural light.



LIGHTING

SAME, BUT DIFFERENT

When taking video – you will need constant light from underwater video lights, as opposed to strobes.



Although you will be using completely different lights, the ideal positioning is about the same for both - in order to avoid backscatter or flare.

BACKSCATTER

YOU DON'T WANT IT!

Even when there are lots of particles in the water - it's still possible to get a good shot, with proper lighting.

It is important to try to avoid lighting the water column between the camera and the subject. The goal is to paint just your subject with the light.



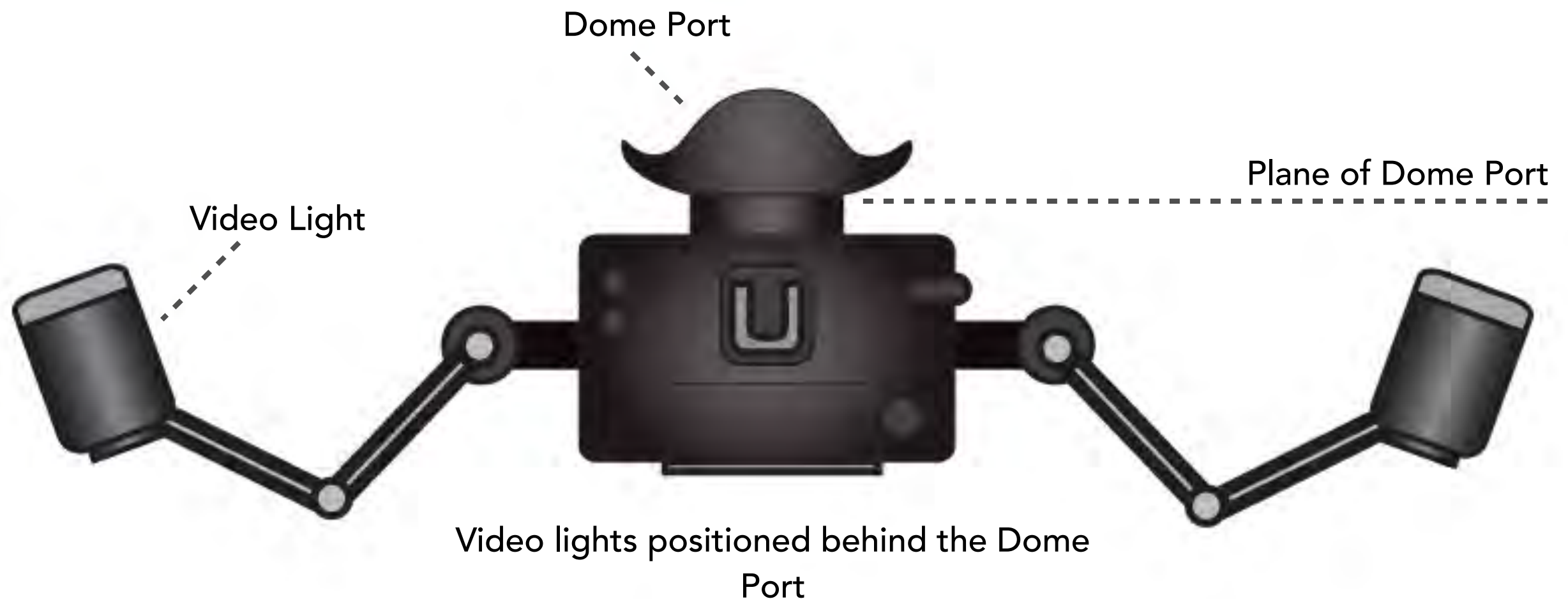
LIGHTING BASICS:

AVOID BACKSCATTER & HOT SPOTS

Preferred positioning -
a good place to start.

Shooting with high lumen video lights:

- ▶ If the lights are too far forward, the camera lens can pick up the bright light – creating “flares” or “hot spots” on the sides of your image. If you are shooting wide angle, the lights need to be positioned behind the Plane of the Dome. Or better yet, behind the plane of the housing in order to avoid “flares” or “hot spots.”
- ▶ Pivoting the lights away from the housing is the best way to minimize backscatter – even if the light arms are at maximum extension.



WIDE ANGLE

LIGHT PLACEMENT OPTIONS

Moving Lights "In" and "Out"

With all three positions the face of the light is kept behind the plane of the Dome Port. Keep the face of the light aimed out and adjust by moving lights in closer to the port for close subjects or further out for subjects further away.

Image 1:
For far away
shots



Image 2:
For medium
distance shots

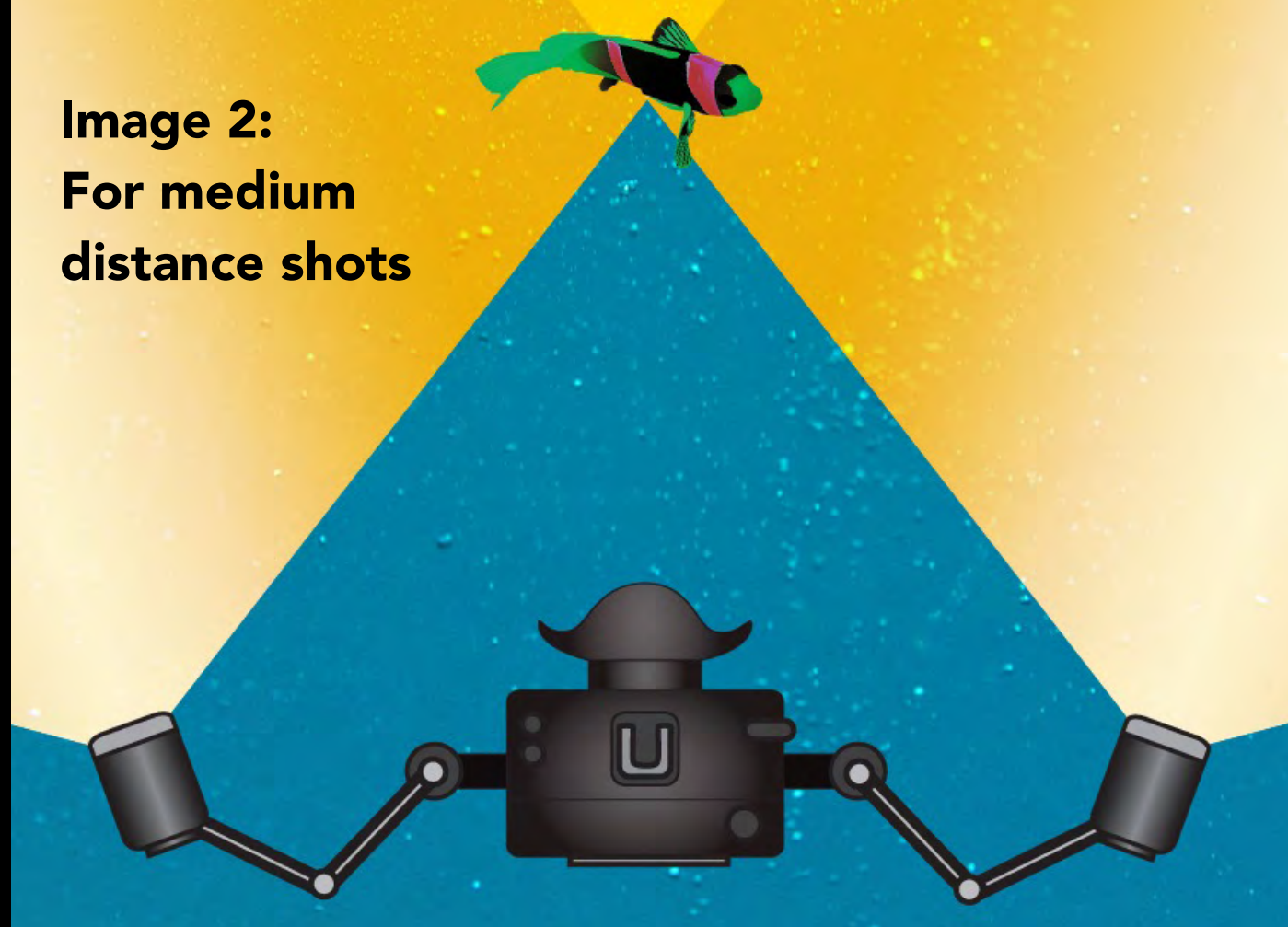


Image 3:
For close-up
shots



MACRO VIDEO

LIGHT POSITION OPTIONS

Pivoting video lights for different lighting effects on close subjects:

- ▶ Lights can be pivoted in (towards the port) to increase light on subject, being careful of creating backscatter.
- ▶ Lights can be pivoted out (away from the port) to decrease light on subject.
- ▶ Shadows can give more dramatic effects. Lights can be moved vertically and horizontally to create shadows.



KEEP THEM WANTING MORE

Don't bore your audience – keep them wanting more!
It's not exciting to watch the same view (clip) on a screen for endless minutes. Yes, minutes can be way too long!

- ▶ Videos should be only 2-7 minutes long – with most falling in the 2 - 3 minute range.
- ▶ Keep each clip within that video around 3-10 seconds – unless there is something super exciting or captivating.
- ▶ Add some music to help keep things moving (please follow copyright law).



COMPOSITION

IS NOW A MOVING STORY

So, you got the idea of how to take a good photo – now you need to look beyond that one shot – expand your intuition and predict movement.

- ▶ **Think about how your subject is moving, then position yourself to capture it at an interesting angle.**
- ▶ **Also think about moving yourself while shooting.**
- ▶ **Try to keep all camera motion as smooth as possible and again, be aware of your environment.**



SEE OUR HANDBOOK:
["COMPOSITION"](#) TO LEARN MORE.



DON'T ALWAYS FOLLOW YOUR SUBJECT

- ▶ **Story transitions:** Just like video on land, sometimes it's better to let your subject enter or leave the frame. That can make a nice transition to another shot.
- ▶ **Don't chase** - try to intercept: You probably already know from photography – no one wants to see fish butt (for the most part), that is true in video as well.
- ▶ **Let it go:** If you can't get the shot – move on.

IT'S BETTER TO HAVE EXTRA FOOTAGE

You don't want to be stuck with too little footage.

- ▶ **Get the before and the after** - just in case.
- ▶ **Don't wait too long and miss the grand entrance.**
- ▶ **At the end of your shot, continue filming for a few seconds** – so you have room for a transition.
- ▶ **Be ready** – you never know what's going to happen underwater!



KEEP IT CRISP & CLEAR

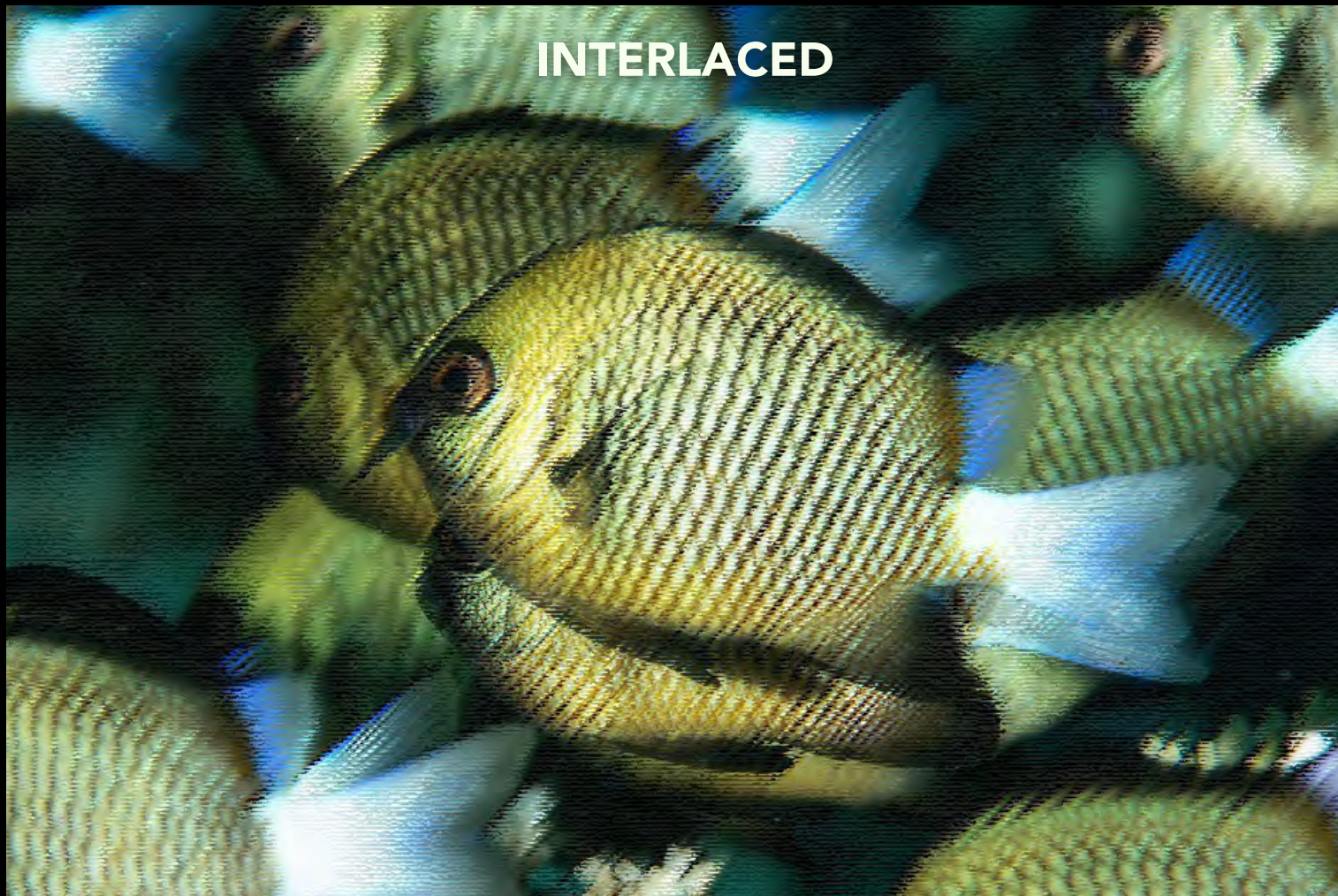
Before you take your camera underwater check the video settings.

- ▶ **Progressive:** Make sure your video settings are set to Progressive – even if you have to choose a smaller image size – choose the largest progressive setting.
- ▶ **Interlaced:** Stay away from Interlaced video! Interlaced settings will give you nothing but headaches when shooting underwater. If you shoot interlaced video – your camera only records every other horizontal line.

Example: 720p is better than 1080i for underwater shooting



PROGRESSIVE



INTERLACED

FRAMES

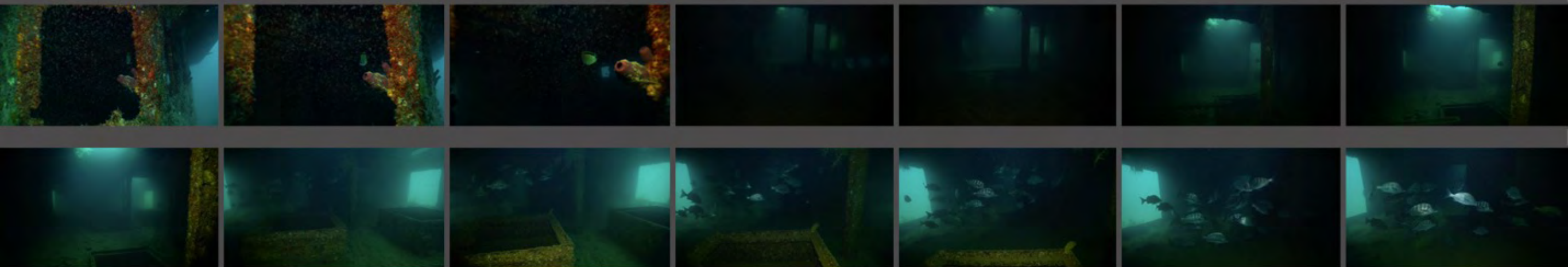
HOW MANY?

You don't have to think about the old standards of 24 or 30 frames per second – at least not while you are shooting.

Frames per second:

- ▶ Because of all the movement underwater, the more frames, the better!
- ▶ If your camera can shoot 60 or 120 frames per second (making sure it is still progressive) – go for it!
- ▶ Later, your editing program will convert the footage to 30 (or 24) fps.

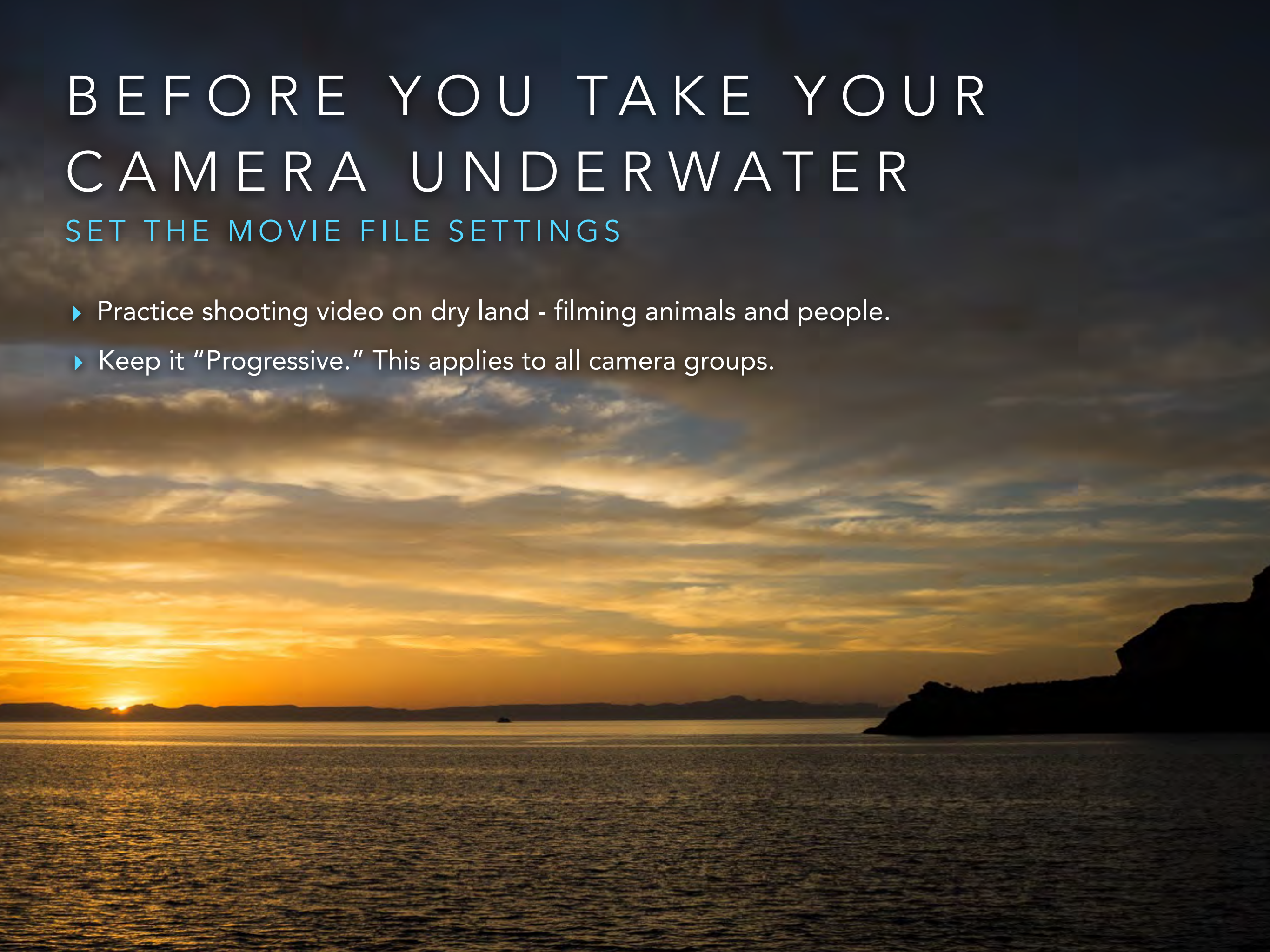
More frames means **more information** which means **clearer motion**.



BEFORE YOU TAKE YOUR CAMERA UNDERWATER

SET THE MOVIE FILE SETTINGS

- ▶ Practice shooting video on dry land - filming animals and people.
- ▶ Keep it "Progressive." This applies to all camera groups.





Part of the “Basics of UW Photography” Series

OPTICAL OCEAN SALES

UNDERWATER PHOTOGRAPHY EQUIPMENT

More handbooks and other free information at:

OpticalOceanSales.com/Education

1800 Westlake Ave. N, Seattle, WA 98109
800-359-1295 / 206-284-1142

orders@OpticalOceanSales.com

© 2015 Optical Ocean Sales, LLC