## Finch Videography

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relatively new aspect of aviculture is the ability of the average birdkeeper to document and record bird behavior — a realm once reserved exclusively for the scientist and researcher. With the constant advances in video technology and the blurring of lines between consumer and professional equipment, it is now possible for the average person to afford and make professional videos. In our experience, birds which are frightened by a 35mm camera remain at ease, carrying on their normal activities, in the presence of a small camcorder. However, when setting out to buy equipment, one is suddenly caught in the dilemma of deciding in which of the various formats to invest. If you do not choose wisely from the beginning, you may be stuck with a dying format or one that is inadequate for your purposes.

The formats available are VHS, S-VHS, 8mm, and Hi-8mm. Beta and U-Matic are professional formats, but we eliminate them due to the prohibitive cost and the bulky size of the equipment

VHS is the standard consumer format and the one you are probably most familiar with, as it is the most likely the kind of VCR you have connected to your television. We discourage the bird videographer from investing in this format, as it delivers only about 225 lines of resolution and deteriorates quickly after only a few generations. The VHS camcorders on the market contain only one CCD (charged coupling device). By generations we mean the process of making a copy of the tape from the original, then a copy of that copy, etc. A CCD is responsible for the capturing of the light and turning it into magnetic signals.

S-VHS (Super VHS), 8mm, and Hi-8 provide about 400 lines of resolution, which makes these good formats in which to invest. 8mm was meant to be the standard of the industry. However, many companies in Japan broke away

from this in favor of their own particular format. Hi-8 is an improvement over regular 8mm, providing better picture quality. Our first video "Breeding Finches-Parts 1 and 2" was shot entirely on 8mm. "The Cuban Melodious" and "Erythura - The Parrot Finches" were shot with a mix of both 8mm and Hi-8. "The Red Strawberry Finch" was shot almost entirely on Hi-8.

The choice you really have to make, then, is between S-VHS and Hi-8 equipment, as both offer you high resolution, acceptable loss of quality generation after generation, and the availability of professional equipment. They also offer what is now known as "pro-sumer" equipment - a crossover between consumer and professional. Also important, both of these formats provide you with professional tape formulations, as you do not want to play back that once-in-a-lifetime shot to discover it is little more than a smudge. Make sure you use true professional tape, which is generally not available through consumer retailers. So be cautious if your local retailer sells you "professional" tape. Just because it says professional on the box does not necessarily make it so. Generally the true professional tape is available to only those in the trade. Make it a point to seek out those sources which will sell to the pros as well as to the "pro-sumers" who are serious and willing to buy in quantity.

Here is where other criteria have to be taken into account. If you plan on making and releasing your own videos, another factor becomes important — the narration track. If you choose S-VHS, after you have edited your master video with the footage in the sequence you desire you will have to record the audio narration separately, probably on audio tape, synchronize that with your video, and record yet another generation with the narration mixed with the master, resulting in a third generation video.

With each subsequent generation

Photos by Carol Anne Calvin and Stash Buckley



Cock Violet-ear Uraeginthus granatina feeding white Society juvenile. Although this pair of Violet-ears successfully incubated, hatched and raised to independence two Societies - one pied and one white - we could not encourage them to raise their own young.



Aggressive posture of the Chestnut-breasted Negro Finch Nigrita bicolor. Estrildid finches were not known to hold this open-beak display until this video was taken. Although not seed-eaters, they do quite well in captivity on a diet of mealworms, eggfood, Romaine lettuce and cucumber.

you will naturally lose some quality. You now see the major flaw of the S-VHS format. Another drawback is the size of the camcorder equipment. Most of these are large shoulder-mount models. As anyone who has worked with small birds knows, it is very difficult to look inconspicuous with a large growth on your shoulder. The manufacturers of S-VHS have countered this problem with the introduction of S-VHS-C. The drawback here, however, is the smaller cassettes provide shorter running times — a definite drawback if you are recording that once-in-a-lifetime nest-building or chick-feeding sequence.

Hi-8, on the other hand, is a miniaturized format, the videocassettes being about the size of a standard audio cassette, and provides the same standard recording time as S-VHS — two hours. Also, the smaller size of the camcorder is a real plus, enabling you to move quickly and effortlessly between cages with a hand-held model.

Here is where the term "pro-sumer" really comes into use. What basically separates consumer from professional camcorders is the number of CCD's. Professional models contain three — one for each of the primary colors of the spectrum. Consumer models contain only one. Both S-VHS and Hi-8 have hand-held models that contain three CCD's, giving you a superior picture and one of broadcast-quality resolution.

Since we have already eliminated the large shoulder-mount models for our purposes, the choice comes down to a hand-held 3 CCD S-VHS or a hand-held 3 CCD Hi-8. The S-VHS models currently available have fewer pixels, which determine sharpness of pictures, than the Hi-8 model, which leads us to the crux of the matter. And the winner-you guessed it - it's a Sony Handicam model CCD VX 3 - lightweight, small, professional quality. This is the camcorder we currently use in our video production.

Now for the bonus on the Hi-8 format: it provides an additional audio track (digital, no less). When you have your final video footage edited up, you simply play back the master on your editing deck and over-dub your narration onto the PCM track. This way you saved an additional generation and you can easily correct or augment your narration.

Now that you are delighted that you have the answer to your video dilemma, here is the Hi-8 drawback. Due to the small size of the cassette, it is much more

susceptible to wear and tear than S-VHS. After producing a Hi-8 master, we make an S-VHS sub-master and, from this, we run off the VHS copies. The major loss of quality occurs when you start making your VHS copies.

Now that you have decided on a format, and you want to videotape your birds, there are a few additional considerations. It is a good idea to buy a tripod. No lengthy discussion on tripod buying here — just get a good one. If your \$3,000.00 camcorder falls off your \$50.00 tripod because your cordonbleu fledgling landed on it and it was so lightweight it tipped over, you will realize too late that saving money on your tripod purchase was a false economy.

Now you have invested in a good camcorder and a good tripod and there you are standing smugly, camcorder aimed at your Royal Parrot Finches, waiting for them to mount, and softly saying to yourself, over and over, "I'm going to give those Palm Tree Video people a run for their money". You have been saying this for about four hours now, and all your birds are doing is eating those expensive organic oranges and hopping around. There has to be a better way ... and there is: a wiredremote. Most quality camcorders now come with a wireless remote which is practically useless for your purpose since it will not go around corners or through walls. Whichever camcorder you choose, make sure it has provisions for the use of a wired remote.

Now there you are, wired in, hiding around some corner, waiting for it to happen, but instead of watching your Parrot Finchesall you're looking at is that cobweb in the corner of your basement. Obviously, you'll need to see what's going on in the birdroom. Now that your birds realize you are no longer watching them, they will engage in that behavior you have been waiting for. Obviously, you will need some way to "monitor" their behaviors. What is needed here is a monitor screen. This can either be designed for this purpose, with fine resolution, or that old TV you haven't used for a while. Simply run a cable from the output of your camcorder to the input of your TV. Now you have the luxury of sitting back with a nice cool drink, watching your birds on the screen, and pressing that wondrous record button when the desired behavior is about to happen.

But, what's this?! They have moved out of range up to the perch near the nest, out of view. Quickly you press your zoom out button, giving a larger view of what's going on. There you see your Royal Parrot Finches engaged in some previously unknown behavior — a true scientific find! The only problem, though, is that they are now a small dot in the corner.

"If only I had a way to move my camcorder around," you mumble to yourself. There is - it's called a pan-tilter. You mount this handy little device between your camcorder and your tripod and with an additional wired remote, it gives you the ability to pan (move from side to side) and tilt (move up and down).

Now you are really feeling rather smug, ready for any recording situation. You have heard through the finch grapevine that those Palm Tree Video people will be supplying their friend Dr. Luis Baptista, with audio recordings of their birds to use in his research. This can't be too difficult. You mumble, "I can do that. I have heard that Dr. Baptista is particularly interested in vocalizations pairs make while inside the nest."

"That pair of Black-masked Swees!" you shout. "They have been spending a lot of time in their nest. Here's my chance to contribute something worthwhile to aviculture."

With great expectations, you move your equipment over to the flight, get set up, leave the birdroom, refresh that cool drink, and sit down in front of that TV monitor with a remote in either hand. With the cool calculation of a professional gun-fighter, you pan over to the nest and zoom in. Barely have the ice cubes tinkled against your teeth when you see both birds enter to nest. Calmly, but with great excitement, you put down your drink, reach for your camcorder remote, and press the record button. You strain to listen to the TV speaker, but all you hear is birdroom chatter. "What could be wrong now?" you mutter. "Why is it that they get the audio recordings and I can't?"

The answer is really quite simple. Camcorders are generally equipped with a stereo microphone. These basically pick up all the sounds to the sides and in front of them. Fine for general recording, but what you need is a shotgun, or directional mic. These concentrate on the sounds directly ahead and screen out or reduce noise to the side, giving much cleaner recordings. These must be purchased separately. Be sure the model you choose is "camcorder ready" with mounting attachment. This you attach to your camcorder's hot shoe and mic input. Most camcorders today come with such provisions, and make sure yours

has them. Once again, make sure you get a good one.

So now you have your supplies and equipment and you are ready to shoot. Most of the shooting you will be doing will be hand-held since most of the spectacular shots are a matter of luck. Perhaps you are shooting a chick-feeding sequence of your Painted Finches, and you notice your cock Violet-ear Waxbill is preparing to mount the hen. You turn as quickly as you dare to get the shot, your camcorder set on the automatic focus mode. But instead of focusing on the Violet-ears which are at the rear of the cage, the camcorder focuses on the hardware cloth in front. By the time you fiddle with the knobs to find the manual focus and turn the focus ring, the shot is gone. It is for this reason we suggest to not rely too heavily on automatic focus, but use the manual setting and learn how to quickly bring your specific subject into sharp focus. This can be a difficult skill to learn, but when mastered it will serve you well.

When shooting through hardware cloth, or the bars of a cage, try to keep the principal activity areas — seed dish, water dish, nesting site, etc. — a good distance away from the front hardware cloth, or at least give yourself an angle with some distance. The reason for this is , when you shoot through hardware cloth, the closer you are to it, the further away your subject, the more likely it is that the hardware cloth will "vanish". We do not recommend shooting through glass, as it is dangerous to the birds and a reflection will sometimes be visible.

We recommend shooting under Vitalites (full spectrum lighting) as the colors appear true and life-like, and no additional lighting is necessary. Obviously, we do not recommend the lights that can be attached to camcorders as these may terrify your birds, leading to injuries. If you require additional lighting to video your birds, then your fundamental set-ups are inadequate. Lights in the birdroom should not only be mounted on the ceiling, but also directly over the birds, resting on top of their flight and breeding cages.

Of course, as in photography, it is important to keep your camcorder steady while shooting. The lighter and smaller the model, the more difficult this will be to do. Some models have compensated for this with an electronic stabilizing system, and these appear to be fine. The model we use has neither and we still get the job done.

Moving shots of the birdroom or following the narrator can be quite exciting. For this we recommend the Steadicam Jr. These are manufactured by the same man who designed the large Steadicam for cinema productions. We find ours absolutely wonderful.

To capture a moving narrator's audio we recommend the use of a lavalier microphone. These are the small clip-on type mics which broadcasters use and transmit by means of radio waves. It is a sloppy production when a narrator is discussing important points in breeding, turns away from the camcorder to see the bird, and all that is picked up is some muffled mutterings.

Many finch breeding behaviors seem to occur in the morning, when you first turn on the birdroom lights. For this reason it is a particularly good idea to bring the camcorder in with you. As you distribute eggfood and go through your regular routine, keep an eye out for behaviors. Birds such as Crimson Finches and Pintailed Nonpareils are quite sexually active in the early morning, and many good shots can be had.

If you want to video your birds eating, bathing, attacking a millet spray or cuttle bone, first introduce a fresh supply and be at the ready with your camcorder in hand. This is quite similar to capturing nest-building sequences. Throw in a handful of new nesting material and be ready to video the results. Breeding behaviors can be encouraged by misting. However, some shots are simply a matter of luck or perseverance, and the hours one has spent curled up motionless in a corner is well worth it when one views the playback.

You may ask, "Why not use the remote equipment?" The answer is simple. It only allows you to view what is on the TV screen. In the birdroom, you should always be discreetly looking around to see what is happening, at the ready for that once-in-a-lifetime shot.

It is here we should like to mention another piece of equipment: the 2X converter lens. This magnifies what the regular lens sees two times, appearing to bring the subject in closer. We recommend not to piggyback these as distortions can occur. The drawback is that slight camcorder movements are magnified as well. Once again, make sure your camcorder has provisions for attaching such a lens.

So now you have your equipment and some tricks of the trade up your sleeve. You've seen those Palm Tree Video pro-

ductions, but you don't like their graphics. Their titles are difficult to read. All of our videos mentioned so far were titled using only the limited graphic abilities of the camcorder. Two new titles to be released. "Understanding Behavior to Enhance Breeding in Estrildid Finches" and "Handfeeding Estrildid Finches" will show the benefits of professional titling and graphics, which gives the pro-sumers' finished product a professional look. These can easily be compared to the updated and soon to be re-released previously mentioned titles. Titlers are dramatically dropping in price, and good machines are now affordable. One word of advise: do not get too caught up in the multitude of effects possible or your production will appear gimmicky.

OK, so now you've got your production studio and you're ready to go. While videotaping and observing your birds, you've learned quite a lot about their behavior and would like to write some articles. If only you had some photographs to accompany them. You're in luck! With the availability of video printers, it is now possible to 'pull off' video prints and submit them along with your article, as photographs. With 30 frames per second, it gives you a good chance to get the shot you're looking for. In fact, the photographs accompanying our Watchbird articles are video prints, except for the photographs of the Java Mannikins (provided by Kris Kroner) and the normal Red-hooded Parrot Finch in "Parrot Finches in American Aviculture" (provided Dale by Thompson).

Our video printer is an earlier model, quite temperamental, and usually requires a sacrifice in the form of print paper for it to work correctly. The drawback is that video prints are not quite as crisp as photographs. We have not seen the newer model machines, but the resolution is supposed to be much improved.

It is hoped that we have encouraged you to videotape your birds, as much behavior remains to be documented on video. Being a relatively new technology, you as a non-professional but very serious-minded aviculturist/videographer can be a pioneer in documenting on video previously un-recorded bird behaviors (such as mating display of the Pictorella Finch, for instance). This combination of birdkeeping and videography is not only exciting (and fun), but may also prove to be of immense value to the scientific avicultural community and, best of all, to the birds as well.