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## INTRODUCTION

David Scott, a professor of Recreation, Park and Tourism Sciences at Texas A&M University, recently published an article in which he found that of the more than 60 million birders in North America about 7% were in the advanced category. They not only had higher skills and greater commitment to birding than birders in the casual, novice and intermediate categories, but advanced birders were most motivated by a desire to improve their birding skill and knowledge, desire to see new and rare species, contribute to conservation, and to learn about nature and the environment. Ninety-one percent of advanced birders maintained lists of birds and were more likely than other categories of birders to have begun birding during their childhood. If these descriptions sound familiar, and if your ability to identify birds by sight and sound, your insight for habitat and behavioral attributes, and your level of enthusiasm and confidence have grown exponentially, you are likely an advanced birder. With this title, you can also anticipate new roles, problems, and solutions for your avocation. Here are a few areas that will now challenge you as an advanced birder.

## RARE BIRDS

Advanced birders not only have greater identification skills they also tend to spend more time birding. These two factors together mean your chances of finding a bird species unusual for the time of year or area increase. For many birders, the adrenalin rush of finding a rare bird is the ultimate high. Although knowledge of visual characters or peculiar vocalizations are essential for finding rare species, equally important are knowing where and when to look for them. For instance, some rarities turn up during narrow windows of time as overshoot migrants. Evidently, their navigational systems go haywire and they fly beyond their normal target. For other species there are post-breeding wandering flights that take them far outside their normal range. Extreme dry or cold seasons can also drive species into areas not normally visited. Small groves of trees, isolated ponds or mudflats, vegetated riparian areas and mountain tops can regularly attract concentrations of migrants, including rare species. These migrant traps often become rewarding sites for rare bird sightings year after year. Remember, though, that rare birds are often where the birders are. Once a rare bird is found at a site, frequently the large number of birders that visit in subsequent days to see this rare bird find other rare birds.



Now comes the hard part. Once a birder finds a rare bird, the first thing you have to do is to make sure it really is what you think it is. Then you want to share this largesse with fellow birders by calling friends on your cell phone or quickly posting the sighting on a local or regional birders' website (rare bird alert). Equally important, however, is to properly document the sighting so it can become part of the record, something that is all too often neglected. This is often a time of humble introspection, because you must face the local or regional rare bird committee, who will now judge your sighting. This committee, and virtually every state has one, is usually made

up of the most experienced and knowledgeable field birders in the area. Whether they are appointed or elected, their main *raison d'être* is to make sure that no rare bird record becomes accepted unless it is thoroughly documented. Most of these committees are made up of birders who have extremely lofty expectations, and your rare bird report is usually considered suspect unless you can prove otherwise. Remember, extraordinary sightings require extraordinary proof. Everyone from the top birder of the state to a first year beginner undergoes this gauntlet before the record is either accepted or rejected.

A written report is usually required, and many committees provide a form on their website. This takes some work if done well, but even a well-written report will not guarantee acceptance of the record. Don't take this type of rejection personally. Almost everyone has had such a report fail to make it past the infamously high standards of these committees. The report should include the bird name, date, location, lighting conditions, optical equipment used and all other pertinent information about the details of the sighting. Don't be too brief. Take written notes and make drawings as you are observing the bird. Try not to consult a field guide until after you have finished your written description. Describe details of behavior and habitat as well as identifying marks, plumage, eye color, etc. Never write that "it looks just like the picture in the field guide." Justify your elimination of as many similar species as possible, even of species that might be rarer. Take a picture if at all possible. Even poor pictures can be helpful in eliminating possibilities. A sample copy of a report submitted to the Arizona Rare Bird Committee is located at the end of this guide and can be used as a guide for submitting your own reports.

Notes:

Never write that  
"it looks just like the  
picture in the field guide."

## SHARING YOUR BIRDING OBSERVATIONS

As a reliable and experienced bird observer, your abilities can help document species ranges, movements and occurrences. You can do this with bird list software, or on your own with a paper notebook. Be sure to include daily, weekly, or monthly entries of the species you see at a specific site. If you want to share these observations and contribute to a broader data set, Cornell Lab of Ornithology and National Audubon Society have initiated a real-time, online checklist program for you to use and make your notes available to everyone. It is called eBird (<http://ebird.org/content/ebird/>).

eBird uses a simple web-interface where you can submit your observations or view results via interactive queries into the eBird database. A birder simply enters when, where, and how they went birding, then fills out a checklist of all the birds seen and heard during the outing. eBird provides various options for data gathering including point counts, transects, and area searches. Automated data quality filters developed by regional bird experts review all submissions before they enter the database. Local experts review unusual records that are flagged by the filters. In 2006, participants reported more than 4.3 million bird observations across North America.

## SPOTTING SCOPES, TRIPODS AND DIGITAL CAMERAS

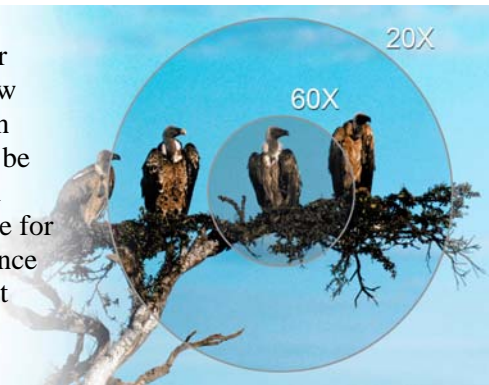
By now, your binoculars have become a natural extension of your birding experience. But more and more frequently you may need to see farther and in more detail than binoculars will permit. It is time for you to consider using a spotting scope to extend your birding expertise and abilities. A spotting scope is a compact telescope designed for long distance birdwatching. Depending on the type and design of the spotting scope, the useful magnification will range from about 20X to 60X. Much of the information you have learned about the optics for your binoculars applies to spotting scopes, but there are some important differences.



Because the magnification of a spotting scope is much greater than that of binoculars, this high power results in a narrower field of view, a decrease in observed image brightness, and a decrease in the depth of field (the range of distance from near to far that objects remain in good focus). Also, distortion and lack of clarity caused by heat waves, haze, and air pollution as well as vibrations are a greater problem at higher magnifications.

**Aperture** - The aperture of a spotting scope is the diameter of the objective lens (the glass that faces the object you are looking at), usually measured in millimeters. For birding purposes, the aperture size will normally range from 50 to 90 mm, and this size is usually directly related to the total size and weight of the scope. The size of the objective lens determines the amount of light that will enter the optical system, and the greater the size the greater the image detail and clarity.

**Field of View**- The widest circle of the viewing area through a telescope is the field of view. This is normally measured in linear feet at 1000 yards or in angular degrees. Because the field of view normally decreases with increasing magnification, this dimension (from 1 degree or 52.5 feet to 3 degrees or 157 feet) will usually be smaller for a spotting scope than for binoculars (right). Although field of view is most limiting at close distances, this narrow range for spotting scopes is adequate because of the medium to long distance observation for which most spotting scopes are used. The closest distance that you can focus on a bird through a spotting scope is typically 20 to 40 feet. Field of view is largely determined by eyepiece make up. Some eyepieces are designed to present wide fields of view (wide angle), and these are very useful and popular for following a moving bird. Eyepieces designed for long eye relief generally have more narrow fields of view. Zoom eyepieces will usually have a more restricted field than an equivalent eyepiece of fixed focal length.



**Eyepieces** - The eyepiece design is a factor in magnification, field of view, exit pupil size, and eye relief. The optical design and glass quality of the eyepiece can also affect the amount of color or distortion of the image. As mentioned previously, eyepieces differ in many ways. Some are fixed in focal length; some can change the power over a range of 40X or more (zooms). Others are designed to



give either wide fields of view (wide angle) or long eye relief (for eyeglass wearer comfort). They can attach to the scope by different means: screw threads, bayonet mounts or by fastening with a set screw. Some spotting scopes have eyepieces that are non interchangeable (usually these are either zooms or waterproof scopes). The eyepiece placement may be constructed for straight through, forty five degree, or ninety degree viewing (right). Also, some eyepieces are available in different diameters, varying from 0.96" to 2". Eyepiece position is usually a personal preference with the straight through design being preferred by many birders. This design makes it easy to sight an object and follow as it moves and is also convenient to use with a car window mount. A spotting scope with an offset forty five or ninety degree placement is easier to use for viewing above the horizon or at tree top level and does not require a tall tripod. Thus, this configuration is convenient for sharing your observations with other birders who are of different heights. The main drawback to the angled eyepiece is the often considerable practice needed to quickly locate a bird in the scope.



**Eye relief** - Eye relief is the distance behind the telescope eyepiece where the light rays from the object entering the scope exit through the eyepiece to form a magnified, circular image (exit pupil). The location of this point is where the complete field of view is clearly visible to the observer. This distance is most important for those who wear eyeglasses as the minimum distance for comfortable viewing is about 15mm. Although the user of a spotting scope can accommodate for near or far sightedness, those with mild or severe astigmatism will almost always need to wear their eyeglasses for comfortable viewing. Fortunately, many manufacturers now offer eyepieces with long eye relief or at least provide fold-down rubber eyecups for convenience to those who wear eyeglasses (right).



**Focusing** - There are two commonly used types of focusing mechanisms on birding scopes, helical and knob focusers. The characteristics of each type can make a difference in how efficiently you can use the scope and even how much you will enjoy it. Helical focusers are knurled or rubberized collars around the scope barrel where the focus is changed fairly rapidly when turning the focusing ring. Helical focusers are best for focusing on birds that are changing distances rapidly. Knob focusers are slower in action but allow for more precise focusing and are generally preferred by most birders.

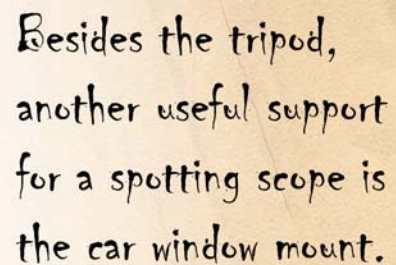
**Choosing a tripod** - As you look through a binocular or telescope, not only is the bird magnified but so also is any movement, vibration or tremor from your hands or the wind. The resulting unstable image can cause loss in image resolution as well as eye strain or headaches. The greater the magnification the greater the chances for bothersome image movements, and something to steady the image, such as a tripod, is almost always necessary when viewing at powers higher than 15X. Many binoculars and most spotting scopes have a socket at their center hinge for attachment to a tripod adapter.

A perfect tripod, is lightweight, rigid, strong, conveniently portable,

easy to set up, inexpensive and tall enough for comfortable viewing. Unfortunately, the perfect tripod does not exist, and you will have to make some compromises when selecting one. Tripods are usually composed of two parts: the legs and a detachable head. The legs should be of a closed, tubular, lightweight material (aluminum or graphite) with relatively thick walls. Wooden tripods make excellent stable platforms, but they can be very heavy. If your spotting scope has an eyepiece with the straight through configuration, you will need a tripod tall enough to allow comfortable, erect posture during long term observation. A 45° or 90° eyepiece placement will allow you to use a shorter tripod height that also provides more stability with a lower center of gravity. Usually the legs have two or three telescoping sections for height adjustments and when retracted provide a compact size for carrying or packing. The sections are adjusted by means of either a flip lock or clamp lever or a threaded twist lock. Threaded twist locks offer good strength and rigidity, but take longer set up and breakdown time. They are also subject to over tightening and can pick up sand and grit. Flip lock or clamp levers are generally the most satisfactory overall because of quick set up, trouble free operation (easy to use with gloves), and long term durability. The tripod center post can be adjusted by simply sliding to position (lift type), or they can be gear driven. Your choice is primarily a personal preference, with the gear driven offering easy height adjustments, and the sliding center posts are lighter and faster to use.

Tripod heads come in a variety of shapes and sizes with the most common types being the 3 way panhead, ball and socket head, and the fluid head. Most of these heads were designed primarily for photographic use but can perform adequately for spotting scope observation as well, the choice again being a personal preference and perhaps based on the size and configuration of your spotting scope. Another feature offered with some tripod heads is a quick release plate, which allows you to easily and quickly remove a spotting scope from the tripod and replace it with a camera, or vice versa. While these are convenient, the scope can easily be damaged by falling off the tripod after an accidental bump or unintended turn of the quick release lever.

Besides the tripod, another useful support for a spotting scope is the car window mount. Your car is one of the most convenient and comfortable blinds for observing birds and other animals up close, and using one of these mounts can be quite rewarding. They also are a great advantage to handicapped observers or for viewing in extremely cold or foul weather. They attach firmly to the partly rolled down window of your car providing stability for binoculars, spotting scopes or cameras with telephoto lenses. Most models feature a panning head with a positive control handle. In addition, shoulder braces that resemble a gun stock are convenient and lightweight. However they are not as stable as a tripod and make sharing views with companions difficult. For ultra lightweight stability, table top tripods or monopods that double as walking sticks are available.



Besides the tripod,  
another useful support  
for a spotting scope is  
the car window mount.

Finally, some accessories to consider include cases, bags, carrying straps, and tubular foam pads placed over the tripod legs to soften the weight while carrying the scope and tripod on your shoulder. Also available for some tripods are shoes for snow, sand and other irregular surfaces or spike tips to dig in and prevent shifting of the tripod in gravel, dirt or grass.

**Digiscoping** - Even though a spotting scope is primarily for observation, it also can be used as a telephoto lens for a camera. The optical design and configuration of the scope and the available accessories will determine its potential for this purpose. Unlike a camera telephoto lens, spotting scopes will usually operate at much higher magnifications, have a greater need for stability, show more limited depth of field, and have a narrower field of view.

In its basic form digiscoping is holding a digital camera up to the eyepiece of a spotting scope, viewing the scope image on the camera's LCD screen, and taking the picture. The spotting scope's image magnification is multiplied by the camera's optical zoom to form the final image on the LCD screen. For example, when held behind a spotting scope at 20X, a digital camera that has a 3X optical zoom (the lens equivalent to a 35 to 105 mm lens on a 35 mm camera system) actually magnifies the image 2X, and would yield a final image that was 40X bigger than life. That's like having a 2000 mm telephoto lens.

Virtually any spotting scope will work for digiscoping. However, it's the type of digital camera that can be tricky for making the combination work. In general, a higher quality spotting scope with a zoom eyepiece is the most useful. Digiscoping is usually done with point and shoot digital cameras, but full size, digital single lens reflex camera (D SLRs) can operate behind a scope eyepiece just as well. Although a point and shoot digital camera can have the same pixel count as a D SLR, the image quality of the D SLR is generally better, and you don't have to squint at tiny LCD screens or deal with the shutter delay of many of the little cameras.

The only sure way to know if a particular camera/spotting scope combination works is to do a direct test or rely on someone who has already done so. The main problem is holding the camera up to the eyepiece or finding an adapter that will do it for you. At high magnifications, any movement of the camera while pushing the shutter button will be magnified, causing a blurry photograph. What you need is an adapter that will center the camera behind the eyepiece, hold it in place, and enable you to let go of the camera. An inexpensive solution used by some is a long, wide rubber band. With a small camera this elastic band makes mounting fast and secure. More expensive but more secure, some spotting scope manufacturers have made digital camera adapters expressly for their products.

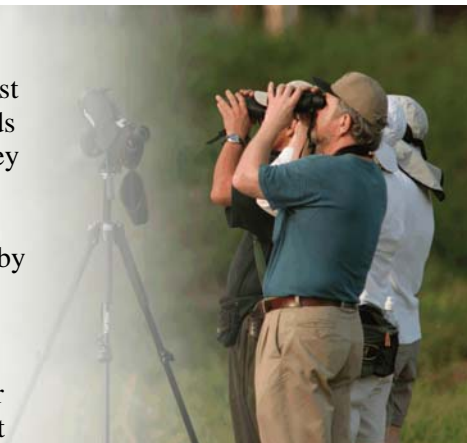
Most of today's digital cameras have a sophisticated auto focus system. If you have the bird sharply focused in the scope view, the camera looking through the pre-focused scope should be able to auto focus on the bird, too. If the camera has an "action" setting, use that



to get as high a shutter speed as possible. Aperture priority mode, if available, will allow you to dial in a wide open f/stop to get the fastest shutter speed possible for the scene. Set your ISO high (200 or 400) if possible. Take as many shots as you can. The more you take, the better the chances of getting a sharp image. Because you will be using the camera's LCD screen a lot in the field, take plenty of batteries with you.

## IDENTIFICATION WORKSHOPS AND EXOTIC TOURS

Because most advanced birders share a desire for increasing both their knowledge of birds and the number of bird species they have seen, two popular formats have evolved to fill the demand. The first of these is an organized study group called a workshop. Thousands of birding identification workshops are now taught each year. They concentrate on how to identify bird species of a local area or on a difficult-to-identify group of species, such as gulls, ocean birds, sparrows, flycatchers, or warblers. The workshops are sponsored by educational groups, birding organizations, local chambers of commerce, conservation societies, photography clubs, state departments of wildlife, and many other groups. The costs are generally modest and the instructors very experienced. In a day or two of classroom lectures and field trips, you can learn more about bird identification and observation than you would on your own in a year. These workshops are advertised on web sites and in nature and birding magazines.



The second format popular among advanced birders is guided birding tours. These tours are specialized to take you in varying degrees of comfort to where the birds are. Expert leaders know exactly where to locate the species most sought after, and you share this birding extravaganza with a small number of equally enthusiastic birders. These tours not only cover domestic sites in North America and Europe but also go to remote corners of the world. The costs are usually significant, but the demand appears to be growing. About 35 birding/nature tour companies control nearly 90% of the world market. In the US and Canada, the specialized birding trips are dominated by three or four commercial operators. In addition, non-profit organizations such as the American Birding Association, National Audubon Society, affiliated state Audubon organizations, local zoos, and museums offer birding tours. Besides costs, important factors to consider when choosing a bird tour are: group size, tour leader experience, emphasis on birding vs. other cultural and shopping activities, company size and length of operation, age/fitness expectations of tour participants, and policies regarding children on tours. The best bet is to talk to someone who has already gone to a tour destination and with a company you are considering. For some, these organized tours are a good way to develop travel sense and confidence. After a few organized trips, birding exotic places on your own or with a few like-minded friends becomes an attractive alternative.



## LEADING FIELD TRIPS

As an advanced birder you likely have been in charge of Christmas Count areas, and perhaps been sought out to lead day trips for the local Audubon society or other birding groups. Birders in general like to share their experience and skills, and if you haven't yet been approached, volunteer your services. It can be very fulfilling. However, being a good field trip leader involves several skills. The first, of course is your experience with birding. Knowing where to find birds and then identify them by sight and sound is essential for a bird leader. However, many tour participants perceive the best leaders as also having good people and organizational skills.



You need patience and understanding, but you also need to know simple skills such as how to point out a bird that some of the participants are having a hard time finding. Many advanced birders forget how hard it was when they started. Now they are so good that they can have someone else vaguely point out a bird with a point of the chin and locate it instantly. They expect that everyone else can be as astute and quick, and as a result many advanced birders make lousy leaders. Practice using landmarks, branches, peculiarly-colored leaves and whatever it takes to guide the inexperienced birders to the bird sitting in the canopy. Use the clock position method to help the novice birder locate a bird: 12 o'clock is at the top of the tree or bush, 9 o'clock is on the left-hand side of the tree, 3 o'clock is on the right hand side, etc. Many leader now use a green laser pointer to show where a bird is hiding, but do not put the green light on the bird itself. Point the laser just below or to the side of the bird.

Discuss birding etiquette and the rules you would like to follow when you lead the birding trip. Most people are more than willing to follow the rules, they just don't like surprises. Let people know that if there are only a few spotting scopes, they should look at the bird quickly and then step back for others to see before the bird flies off. Teach them that loud noises, talking and screaming (even over a life bird) are inappropriate in the field. Do you use bird sound recordings to attract birds into sight. If so, what are the restrictions in time and use? What kinds of clothes should they wear? Are car caravans used? If so, what are the safety suggestions for pulling off the road? The more these details are discussed ahead of time the better. However, there are ways of discussing rules that make some people feel like they will be submitted to a drill sergeant's whims. Make the field trip exciting and fun. Be sensitive to how obsessed or enthusiastic the participants are. Do they want to only identify birds or do they also want to hear interesting details about behavior and ecology of the birds? Are they interested in looking at the occasional butterfly or plant, or do they see that as a disruptive diversion? You may decide that after trying out the leader role, you are not cut out for it. Not everyone is. Be honest with yourself. If it does work out, you will find many rewards meeting new people and improving your own birding skills. There is no better way to learn a subject than to have to teach it.

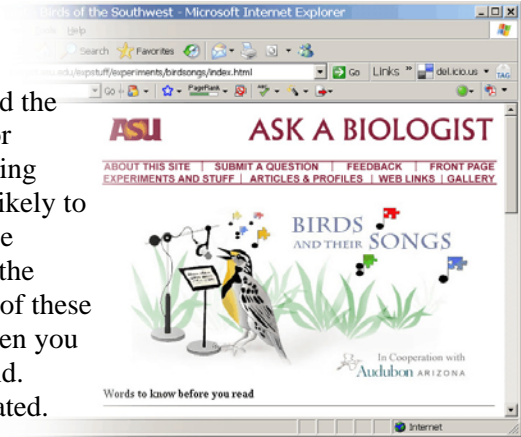
## BIRD CONSERVATION -

As an advanced birder, you also have a unique opportunity to apply your skills to saving habitats and bird species that are threatened globally, regionally or locally. Most professional conservation biologists and wildlife managers lack money, time or personnel to gather pertinent field data. Volunteering to work with these professionals is a critical resource for them, but just as critical as the high level of your skills is your dependability. If you commit for a long term project, makes sure you will be able to meet the expectations of the project. If you are able to commit to only short term projects, consider becoming involved in Christmas censuses, breeding bird surveys, bird atlas projects and other data gathering projects that can use you for short periods. Consulting with land managers, educating, participating in public dialogue, working with policymakers, and raising awareness through media are alternative volunteer efforts that can use your particular skills and personality. Volunteers that can write, supply enthusiasm and concern, undertake skilled negotiating, or make telephone calls and stuff and staple envelopes are all needed. No matter what the project, make sure you understand the goals of the project. Follow directions but also feel free to offer suggestions for improving data gathering, analysis or public dissemination. In addition to your time, money is also always needed to fight conservation battles. Seek out the groups and non government organizations that most share your conservation philosophy and have the most active programs. Donate to them.

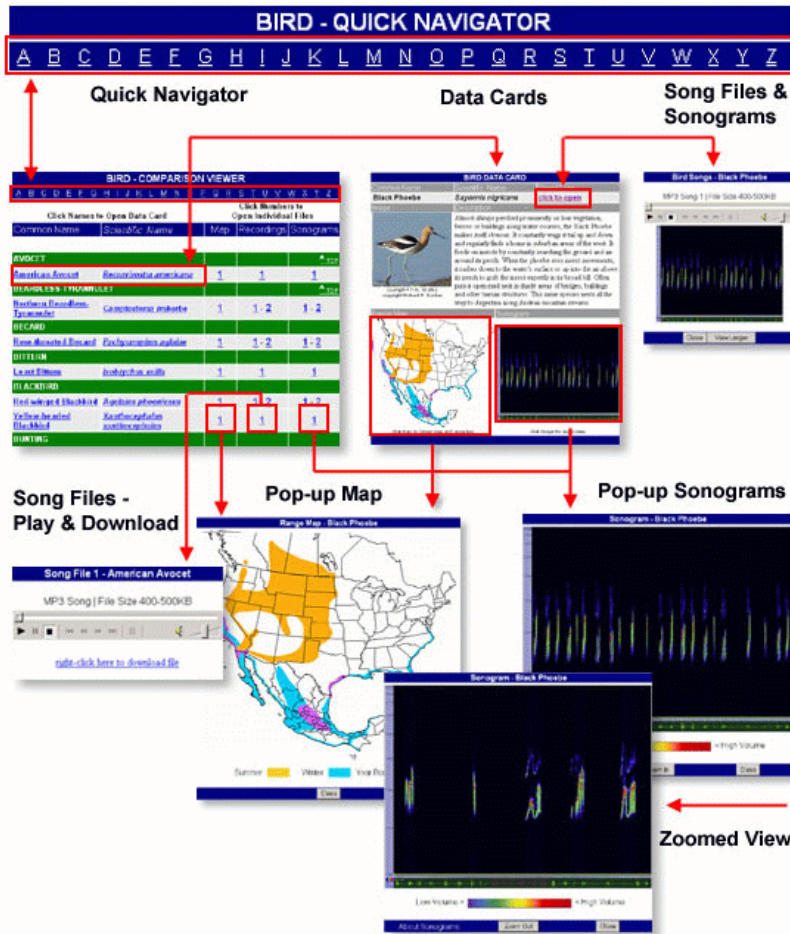


## BIRDS OF THE SOUTHWEST WEB GUIDE

If you have printed this guide out, you have most likely visited the virtual aviary on the web site. Besides being a fun resource for birders of all levels, it can help you before and after your birding trips. Before you leave you can check to see which birds are likely to be found in the area you will be visiting. You can check on the habitat, range maps of species, along with seeing a picture of the bird. In addition, you can listen to the various bird songs. All of these will help you locate and identify birds while on your trip. When you return you can also use the web site to confirm what you found. Below is a quick tour of the aviary and how the content is related.


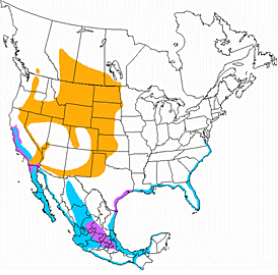
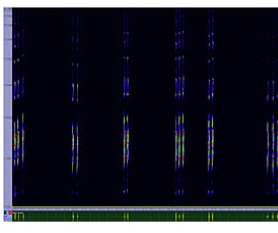


### Quick Navigator



From this area you can open any data card, along with individual maps, songs, and sonograms.

## Data cards

BIRD DATA CARD		
Common Name	Scientific Name	Sound Files
American Avocet	<i>Recurvirostra americana</i>	<a href="#">click to open</a>
Image	Description	
	A noisy and obvious resident of inland marshes, mud flats and ocean estuaries, the American Avocet uses its long legs and peculiarly upturned bill to stir up aquatic invertebrates underwater. Often nesting together with other pairs of avocets in a loose colony, they are all quick to fly over the heads of intruders and dive bomb them with loud callings. It commonly swims when the water is too deep to wade in. The nest is a shallow depression near water in sand or gravel and often in the shade of an isolated bush.	
Length = 18 in., 46 cm   copyright Robert Shantz		
Range Map	Sonogram	
		
<a href="#">click map for larger view and range key</a>	<a href="#">click image for larger view</a>	

The data cards help you focus on individual birds. It brings together all the basic information you can use to locate and identify birds either by sight or sound. Bird images, their size, and descriptions of their habitat are included in each card. You also have access to range maps, recordings, and sonograms of the recording.



## SAMPLE RARE BIRD REPORT

REPORT TO ARIZONA BIRD COMMITTEE  
DOCUMENTATION OF UNUSUAL BIRD SIGHTING

**SPECIES:** Parasitic Jaeger

**DATE OBSERVED:** 04 Sept. 2006

**AGE: SEX: NUMBER:** Single, apparently an adult, dark plumage form

**LOCATION:** *Exact address or specific details, such as distance and direction from the nearest landmark:*

Ft. Huachuca, followed bird for three miles over the paved road running north and south from the Army Sportsman's Center to the Tethered Aerostat RADAR System (TARS) site (road to Garden Canyon before it turns sharply west up Garden Canyon).

*County: City: Elevation:*

AZ, Cochise Co., Sierra Vista (elevation = 4800 ft)

*Time: Duration of Observation:* Total of 10 minutes (beginning about 08:15 a.m.) driving vehicle, stopping and getting out of vehicle four times to observe the soaring bird as it moved in broad circles south along the base of the Huachuca Mountains.

*Distance to Bird: Light Conditions:* When the bird soared on the west side of the road it was in sunshine with blue sky and broken clouds for a background. When it soared to the east side of the road it was in gray skies with rain clouds in the background.

*Habitat:* Soaring over grassland-mesquite savanna from 100 ft to 2000 ft over head.

Optical Equipment: Swarovski 10x40 and Leitz Trinovid 10x40

**OBSERVERS:** David L Pearson (initial observer) and Nancy B. Pearson

**DETAILED DESCRIPTION:** *include size, shape, plumage characters, eye color, legs, bill, and any other unique features:*

When we first saw the bird, it was soaring and occasionally flapping away from us 100 feet directly over the paved road. Because of the long pointed wings, large falcon size, falcon-like flapping that interrupted the soaring, and because of our view from behind, I first thought of Peregrine or Prairie Falcon. I assumed I was looking at a dark silhouette against the clouds and thought that was why I was seeing it as all black. However, when it soared, its wings were bowed up in the middle like an Osprey or sea gull. We then got out of the vehicle, and at a distance of no more than 300 feet from us it banked toward the west and came into the sunlight. We saw that it was all charcoal gray above and below. The cap appeared a bit darker, but the distinct white patch at the base of the outer primaries on each wing was in stark contrast to the rest of the wing and body. These white wing patches were most obvious in flapping flight and from the underside, although they were distinctive on the upper surface as well. The central tail feathers extended beyond the rest of the tail feathers in the form of a moderately long point (but not by more than about 4 inches). We could see no obvious barring or light flecking anywhere on the body, wings or tail.

As the bird soared higher it moved farther south, and we drove down the road rapidly to get under it again to get out of the vehicle and watch it as soared higher and higher and farther south. We did this driving and stopping to observe the bird through binoculars four times. We had a small KoolPix Nikon camera with and where able to take three pictures of it at some distance. Even though the pictures are not of the quality that we or anyone else would have liked, they do show the shape, color and profile of the bird. The resolution is at high enough pixels that if you zoom in on the black specks, they do show some form that can at least eliminate some other species.

**BEHAVIOR:** Soaring and flapping with quick-falcon-like wing beats at lower altitudes, when it reached 1000 ft elevation the bird soared on fixed and bowed wings constantly with little or no flaps. It soared in broad circles of about ½ mile diameter until it reached its highest altitude of 2000 ft, and then it soared off in a relatively straight line south along the eastern base of the Huachuca Mountains.

*Describe the specific features that led to your conclusion. What other species were considered? How were these eliminated?* We considered Prairie Falcon, Peregrine Falcon, and immature sea gull, but the all dark plumage with distinct white wing patches and bowed-wing soaring eliminated the falcons. The falcon-like wing flapping, the white wing patches and pointed, elongated central tail feathers eliminated any likely species of immature sea gull, such as Heermann's Gull. We considered the two other jaeger species, but the falcon-like wing beats and moderately slender body proportions eliminated the Pomarine Jaeger. I have seen many Pomarine and Parasitic Jaegers before in flight, and the Pomarine Jaeger tends to have a heavier more cumbersome flight pattern. Also the white wing patches were too small to correspond to the relatively large white patches on most Pomarine Jaegers. The pointed central tail feathers were unlike the long twisted central tail feathers usually associated with adult Pomarine Jaegers or the blunt-ended shorter central tail feathers of juvenile or immature Pomarine Jaegers. Dark morphs of Long-tailed Jaeger are apparently quite rare, but adults have very restricted white patches in the wings and their flapping flight is more tern-like. Normal plumaged juvenile Long-tailed Jaegers should also have conspicuous white barring on the upper tail coverts. Dark-morph juveniles will have larger white wing patches than adults, but these dark morph juveniles also have a distinctive checkered pattern of black and white on the underwings and under tail coverts that the bird we saw lacked.

*What experience have you had with this and similar species?*

I have seen more than 500 individual Parasitic Jaegers in my life time, from Minnesota, coastal Pacific and Atlantic North America, Alaskan nesting grounds, to South America. I have seen more than 300 Pomarine Jaegers and about 80 Long-tailed Jaegers at various places, mostly on pelagic trips. These sightings have included many variation on color forms, juvenile, adult breeding, and non-breeding individuals. I have never identified a dark morph Long-tailed Jaeger, however.

*Significance of the occurrence for this date and place:*

I realized as soon as I identified the species as a Parasitic Jaeger it was an accidental occurrence. I knew there had been records for Sept. at Willcox (2002) and for several other parts of northern and western Arizona. It appears that the majority of the records for Arizona have been from the first half of Sept or the last week in August. I also knew that the other two jaeger species had been seen as accidentals during this time period, including a specimen of a Long-tailed Jaeger from just north of Sierra Vista in 1989.

**Notes were made:**

Initial notes and drawings were made in a small spiral notebook immediately after seeing the bird fly out of sight and without consulting a field guide. Nancy also called out the presence or absence of various field marks independent of my observations. We concurred on the white wing patches, prominent central tail feathers and general body color.

*How well was the bird seen?*  X Very well

*Books, illustrations and advice consulted; how did these influence your description and conclusion?*

Later, after returning home to Tempe, I consulted "Seabirds: An Identification Guide" by P. Harrison, and "National Geographic: Field Guides to the Birds of North America," 4th edition. I also checked the on line check lists available for Arizona. These source helped me check and eliminate more subtle plumage differences, especially among adult and juvenile plumages of the three jaeger species.

**Additional documentation:** *attach and label notes, drawings, photos, recordings, etc.*

Three original unmodified photos of the bird in flight are attached. They are jpg format at high resolution, so the image of the bird can be zoomed to fairly large size. The pictures alone are understandably not likely to be useful for a positive identification to species, but in combination with our observations and descriptions they may prove useful for eliminating some species. I have also attached zoomed and cropped with unmasked images (1a, 2a, 3a).

Signature David L. Pearson

Date Prepared: 08 Sept. 2006