

Royal Tern

20 Aug 1989

n. of Burlington, Des Moines Co., IA

J. Fuller, C. Knight, P. Petersen

through 9/6; photos by P. Petersen; IBL 60:11, 15, 61:86, P-0357

Record Number: 89-51

Classification: NA

DOCUMENTATIONS

Jim Fuller, 20, 27 Aug

Peter C. Petersen, 6 Sep

Cal & Bernie Knight, 6 Sep

PHOTOGRAPHS

P. C. Petersen, 6 Sep, P-0357

T. H. Kent, 9 Sep, Caspian Tern adult & juvenile, P-0377

LETTER

Pete Petersen to Carl [Bendorf], 3 Nov 1990

REFERENCES

Field Reports: IBL 60:11, 15

Records Committee: IBL 61:86

VOTE: 2 A-D, 3 NA, 2 abstain

Abstain: I personally observed Tern and will let others decide identity.

NA: In analyzing this interesting record, I decided to look at the four critical areas of separating Royal from Caspian Tern: Size and shape of bird; size, shape and color of bill; head pattern; and wing pattern. Size and Shape: Fuller: "Appeared slightly slimmer and smaller, also appeared smaller in flight; generally smaller size"; Petersen: "just smaller & noticeably shorter legged than Caspians but same general shape."; Knight: "about same size as others". Photo by Petersen shows a bird that appears to be virtually identical in overall sitting length and bulk/shape to Caspians. According to various references, Royal Tern should be noticeably smaller and slimmer than Caspian. The size difference described by Fuller and Petersen doesn't sound very dramatic and is not supported by Knight's impressions or by the photo. In addition, Tom Kent reports (personal communication) that, while looking for this bird at the same spot several days later he noticed that many of the subadult Caspian Terns appeared significantly smaller in size than the adults, indicating there can be a size variation. So, on size and build there is a reasonable doubt this was a Royal Tern. Bill Color & Size: The color was variously described as orange; orange-red without any black, a bit more orange than Caspians; and orange throughout. However, during Fuller's second observation he said the bill of some of the non-breeding Caspians was more orange. The shape was describe by the three as slimmer and more slender than bulky bill of Caspians; smaller and less heavy; and thinner than Caspians.

Zimmer (Western Bird-Watcher, 1985) says of Caspian, Royal and Elegant Terns that, "Bill structure and color is a more reliable character [than body size and shape]... Caspians have a very stout bill that is... conspicuously larger than that of Royal. Bill color in Caspian Terns is a deep, blood red, with a blackish tip that is not always conspicuous. The other two species have bills that are more orange (less red) and each lacks the dark

tip. Thus, the documentations are very suggestive of Royal Tern on this point but the issue is not entirely clearcut. Zimmer says the black tip can be lacking in Caspian so this is not diagnostic. Harrison (Seabirds, 1983) describes the Caspian bill as "mostly blood-red" but goes on to say that the juvenile Caspian bill is "dull reddish orange". Petersen's photo of the Royal Tern candidate appears to show a bird with a bill that is nearly identical in color and size to at least one of the nearby non-breeding Caspians. Both are more orange than the adult Caspians and both a pretty big looking--not much different in size than the adult Caspians. In conclusion, the bill is not very conclusive and the documentations and the photo don't agree on the size and shape. Wing Patterns: I didn't concentrate too much on this. First, in my experience wing tip patterns are extremely hard to see well on flying birds. Second, although the guides describe a difference it appears to be fairly subtle. I recall being able to sense a difference in wingtip patterns on Royals and Caspians I have seen but it took about a half a day of direct comparisons to pick it up reliably. Head pattern: From the various reference books, there seems to be enough variation in the head patterns to prevent it from being a very strong character. The head in the photographed bird looks very similar to the head of one of the nearby Caspian Terns. My general conclusion about this bird is that the photos are most likely a Caspian Tern. The documentations don't match the photographed bird very well (or vice versa) and there seems to be a reasonable chance it was a bird that falls into the range of variation in Caspian Terns.

A-D: There appears to be precedent for vagrancy into the central U.S. The following are from Am. Birds ('83 to present only). '84 Wisconsin, June 18; '85 Arkansas, June 14; Wisconsin, July 6; Illinois, Sept 7; '86 Wisconsin record evidently rejected '88 Illinois, June 13 (2nd state record); '89 Oklahoma, Jan. 1-19 Wisconsin, Aug. 2-3 (3rd state record). The observations in the three documentations appear to be pretty consistent. All agreed that the forehead was white. According to NGS guide, this would exclude Caspian. According to Harrison, Caspian has some white flecking which I suppose could cause some confusion. Photo more or less shows white forehead.

All observers agreed on the lighter tips to the underwings, and had Caspians nearby for direct comparison. All agreed on the fact that the bill was slimmer, again with Caspians around for comparison. 2 of 3 felt the bird was slightly smaller - Knights described it as about the same size. With Royal at 20" and Caspian at 21", I would say either description applies. Fuller makes an interesting observation that juvenile Caspian seen several days later had bills of similar color to subject bird. I think bill color is a weak if not unreliable criteria here. I feel that given the descriptions of bill shape, underwing color, and white forehead, we have a record that is beyond reasonable doubt.

NA: Although the written documentations seem conclusive I find it hard to see the described field marks in the photos. 1) Bill

color seems to match the immature Caspian to the right and I can see no black tip on any of the Caspians in the photo. Although I am sure most Caspians show this mark I am also quite sure that many immature Caspians lack a perceptible black tip. 2) I can not see nor can I measure any size difference between the Royal and Caspians in the photo. 3) I can only see the white forehead in the winter Caspian. The angle prevents any judgement of this characteristic in the photos. However, I see immatures and winter Caspians with very little black in the crown. 4) bill bulk is the same in all terns pictured as far as I can see. 5) Water depth makes leg length comparison impossible from the photos. I think the plumage of the tern pictured fits within the plumage variations of immature and/or winter plumage Caspian Terns. Based on the written descriptions alone I would have voted A-D, but because the photos do not corroborate the documentations I feel I must vote N-A.

NA: Photos are inconclusive. The photo with the "Royal" on the left shows another bird that looks identical (only standing in shallower water) standing to its right. Upon some research I found the following: The Birds of Canada, Godfrey, 1979. Caspian by late summer - bill a dull orange, forehead and crown become heavily streaked with white. Field Guide to the Seabirds of the World, Harrison, 1987. Caspian - Some occasionally show mostly white heads with dusky eye patch. Royal - strictly marine. Audubon Society Master Guide to Birding, Farrand, 1983. Caspian - the stout bill is red to orange-red and usually has a black tip. Royal - It is strictly limited to saltwater habitats. Has a distinct black crest. Guide to Field Identification - Birds of North America, Robbins, 1983. Royal - This large tern is quite common but strictly limited to salt water. Eastern and Western Birds, Peterson, 1980 and 1990. Royal - Habitat: coasts, beaches, salt bays. Fuller, on first sighting did not notice lighter under primaries but did on next sighting seven days after consulting several references and possibly making up his mind that they should be lighter. Later sightings could not find a bird with lighter underwing primaries or those that did again concluded that the bird had them and noticed them at varying sighting angles and therefore shadowing on this part of the wing. I do not know the vagrancy pattern of this species but it seems highly remote (at best) that this species would be over 1000 miles inland from its marine, saltwater habitat. I am not convinced within a reasonable doubt that this was a Royal Tern.

AD: As unlikely as it appears for Iowa, good documentations stress the key differing marks between Royal and Caspian Tern.

Abstain: This is an intriguing record. Suggestive of Royal is whiteness of crown and description of flight pattern of underwings. The former can be seen in the photos. I have been unable to find a picture of Caspian showing as much white in cap as especially picture with "Royal" in center. On the other hand, the photo with "Royal" at left appears to have another very similar bird to its right, with 3 obvious Caspians next to right. There seem to be 3 different birds! (possible non-Caspians). The pictures are a little confusing-the single, centered, bird most

intriguing. There are few other possibilities-Crested Tern, Elegant Tern, Cayenne Tern-all extremely unlikely as is Royal Tern. I believe that only an expert could discern correct ID from the photos, as Kaufman says "photograph it or forget it". I will abstain, pending submission to an outside expert.

REVOTE: 1 A-D, 6 NA

NA: Document does not eliminate (totally) juvenile Caspian Tern.

NA: I have little to add in the way of comment to my first round comments. It may be worth noting that several references imply that Royal Tern usually shows a crest, in fact, Robbin's Golden Guide comes right out and says that Royal is always crested. There is no mention of a crest in any of the documentations and certainly no hint of it in the photos. This is certainly an interesting record but there seems to be room for a reasonable amount of doubt. This is one of those birds a person would like to see again!

A-D: I have a hunch that this record would have been accepted, or at least more acceptable had it not been accompanied by photos. At least two NA's rest their objection upon the fact that the photos are not supportive. So, doesn't this simply mean that the record should not be A-P? Another reviewer seems to base much of the NA vote on the fact that this is a marine species, whereas another reviewer provides precedence for occurrence in the central U.S. While I certainly concur that the photos do much more to damage this record than to support it, I feel we must give credence to the written documentations. After all, most records accepted by this committee are based upon written rather than photographic evidence. I feel the written evidence supports the identification as Royal Tern. So there.

NA: Because the tern in the photo is within what I perceive the plumage variations of immature/winter plumaged Caspian Tern to be I can not accept this record as beyond reasonable doubt.

NA: One A-D vote did not leave a lot to comment on. Other A-D did not say much about photos, except that photo MORE OR LESS shows a white forehead. I still think that the descriptions are inconsistent with the photos. The photos submitted with the documentations harm them in that they do not help them in any way and in fact hinder them. I am not sure I would have voted to accept this record based solely on the documentations but it would have been a much harder decision.

NA: I must change my review from A-D to NA. After reading the comments of the other reviewers and more studying myself, I feel there is sufficient doubt of this being a Royal Tern. The bill color and shape, white forehead, and smaller size of the bird indicate that an immature Caspian Tern is a possibility as the references have mentioned. And a Caspian Tern would be more likely than a salt water Royal Tern far from its normal habitat.

NA: Apparently the photos do not seem to correspond with the birds described in documentations, at least not obviously. My main problem was the degree of whiteness in the "forehead" in the photos, but apparently (Peterjohn and notes by NA observer above) within range for Caspian Terns. Bird seem to be the same size and

structure as Caspians also. No evidence in photos of "tufted" look of black feathers at nape expected for Royal. Good try, but no cigar.

REVIEW OF PHOTOS (at meeting of 29 July 1990): Prints and slides were examined and compared to slides of Caspian Terns from the same location and also Royal Terns photographed in Florida. It was generally felt that the photos probably depicted a Caspian Tern based on comparison of size and color and size of bill as well as the head pattern. No action taken.

MOTION TO REREVIEW (at meeting of 11 Nov 1990 with Petersen letter): 2 yea, 5 nay. It was felt that no new evidence was presented.

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Inland Bird Banding Association

Nov. 3, 1990

Dear Carol:

Here are my rather meager obs. from Aug-Oct. I leave Monday for Maui, Lanai & New Zealand back Dec. 10.

Can't help but comment on two of the very related responses to records of last fall's early winter as follows:

Royal Tern: You might check *Handbook of N. Palaeartic* Vol. 4 p. 17-17.28

I grant the photo showed the birds standing in the water & leg length would depend on the water depth as judged by looking at the photo. Two points - the next bird over from the Royal was in the frame showed longer legs and on first view when the boat was in motion too much for photos the birds were on land & it was very clear the legs were shorter. My companions are biologists but not birders & they easily picked out the Royal every time we saw it. Also the underwing pattern was very distinctive - lighter with only dark in the carpal bar area. Note also - the 1987+88 were photographs

88 record was July
↓
88 birds were photographs

Western Gull:

No one suggest this bird could be Great Black-backed is insur. They are huge & the primary pattern (tips) quite different. A reason for a difference in description of darkness of back may be that one obs. was AM & the others PM with quite different light conditions. Many thousands of gulls were present at the I. C. area this day with a heavy southward movement.

I hope these two records can be re-reviewed by the somewhat more objective current committee

Sincerely
R. R. Peters



Caspian Tern P-0377
Pool 18, Des Moines Co., IA
9 Sep 1989 T. H. Kent

see 89-51

Royal Tern P-0357
opposite Oquawka IL, Des Moi Co
6 Sep 1989 Peter C. Petersen

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Royal Tern P-0401
Sanibel, FL
26 Jan 1985 T. H. Kent

see 89-51

Royal Tern P-0357
opposite Oquawka IL, Des Moi Co
6 Sep 1989 Peter C. Petersen

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What species? ROYAL TERN How many? 1Location? SANDBAR IN POOL #18 - MISSISSIPPI RIVERType of habitat? MISSISSIPPI RIVERWhen? date(s): 20 AUGUST, 1989 time: 7:15 PM 7:30 PM
27 AUGUST, 1989 time: 6:33 PM to 7:15 PMWho? your name and address: JIM FULLER, 6 LONGVIEW KNOLL, RR #6, IOWA CITY, IOWA, 52242others with you: CHUCK FULLER (27 AUGUST)others before or (after) you: E & B ARMSTRONG, C & B KNIGHT, P. PETERSEN

Describe the bird(s) including only what you observed. Include size, shape, details of all parts (bill, eye, head, neck, back, wing, tail, throat, breast, belly, under tail, legs, feet). Also mention voice and behavior.

I WAS SCOPING THE BIRDS AROUND A SANDBAR IN THE MISSISSIPPI RIVER AT A DISTANCE OF 500-600 YARDS. A TERN WITH AN ORANGE BILL CAUGHT MY ATTENTION. IT WAS STANDING DIRECTLY NEXT TO A CASPIAN TERN WITH A RED-ORANGE BILL. THIS BIRD ALSO FLEW AROUND WITH CASPIAN TERNS FOR A SHORT TIME. NOTED WERE (1) THE BIRD APPEARED TO BE SLIGHTLY SLIMMER AND SMALLER THAN THE CASPIAN. IT ALSO APPEARED SMALLER IN FLIGHT. (2) AN ORANGE BILL THAT WAS SLIMMER THAN THE RED-ORANGE BILL OF THE CASPIANS.

A WEEK LATER, I WATCHED A TERN LIKE THE ONE SEEN THE WEEK EARLIER FOR 45 MINUTES IN EXACTLY THE SAME LOCATION. THIS BIRD ALSO STOOD NEXT TO A CASPIAN THE ENTIRE TIME, AND SEVERAL OTHER CASPIANS FLEW IN AND OUT AT VARIOUS TIMES. THE BIRD WITH THE ORANGE BILL DID NOT FLY, BUT DID STRETCH ITS WINGS ON FOUR OCCASIONS. FEATURES NOTED WERE: (1) ORANGE BILL WHICH WAS MORE SLENDER THAN THE BULKY RED-ORANGE BILL OF THE CASPIANS (2) GENERALLY SMALLER SIZE (3) THE BLACK ON ITS HEAD WAS NOT AS EXTENSIVE. THE BLACK ON ITS HEAD DID NOT COVER THE FOREHEAD WHICH WAS WHITE IN COMPARISON TO THE BLACK CROWN OF THE CASPIAN DIRECTLY NEXT TO IT. ON THE NAPE, THE CASPIAN HAD A BLACK "U" WHICH WAS SHARPLY DEMARCATED, WHILE THE ORANGE-BILLED (ON BACK OF PAGE)

Similar species and how eliminated: LARGER THAN COMMON OR FORSTER'S TERN (2 FORSTER'S WERE ALSO STANDING IN AREA) DIFFERED FROM CASPIAN IN SLIGHTLY SMALLER SIZE, ORANGE AND SLIMMER BILL, WHITE FOREHEAD, AND LIGHT UNDERWING PRIMARIES.

Did any one disagree or have reservations about identification? NO

If yes, explain:

Viewing conditions: give lighting, distance (how measured), and optical equipment:

EXCELLENT - CLEAR TO PARTLY CLOUDY. LOOKING EAST WITH SUN AT BACK AND SHINING ON THE SANDBAR. IOWA TSN-4 (20-60X 200M)
500-600 YARDS.

Previous experience with species and similar ones:

SEEN ON EAST COAST AND FLORIDA

References and persons consulted before writing description: NAT'L GEOGRAPHICHow long before field notes made? IMMEDIATE this form completed? 2 HOURS AFTER
2ND SIGHTING.

MAIL TO: T. H. Kent, Field Reports Editor, 211 Richards Street, Iowa City IA 52240

BIRD'S NAPE HAD BLACK CUT OFF STRAIGHTER (NOT IN A "U") AND WAS NOT AS SHARPLY DEMARCATED. THESE FEATURES NOTED AS BIRDS VIEWED FROM BEHIND (4) WHEN THE ORANGE-BILLED BIRD RAISED ITS WINGS, THE UNDERWING SHOWED VIRTUALLY NO BLACK IN THE PRIMARIES, UNLIKE EVERY OTHER CASPIAN TERN THAT I SAW FLYING (8-10 IN NUMBER) HAD EXTENSIVE BLACK IN THE SAME LOCATION (5) THE REST OF THE BIRD WAS NOT SIGNIFICANTLY DIFFERENT FROM THE CASPIANS. THE FOLDED WING WAS LIGHT GRAY, AND THE REST OF THE HEAD, BREAST, CHEST AND NECK WERE WHITE. LEGS WERE DARK.

SUBSEQUENTLY, AT ANOTHER LOCATION, I SAW SEVERAL JUVENILE CASPIAN TERNS SEVERAL DAYS LATER, AND THE LIGHT FEATHER EDGING ON THE BACK AND UPPER FOLDED WING GAVE A SCALLOPED APPEARANCE WHICH WAS UNMISTAKABLE AND DIFFERENT THAN THE ADULT CASPIANS OR THE ORANGE-BILLED BIRD. BUT THESE JUVENILE CASPIANS SHOWED AN ORANGE BILL, SIMILAR IN COLOR TO THE BILL OF THE PREVIOUSLY SEEN BIRD.

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DOCUMENTATION FORM
For Extraordinary Bird Sightings in Iowa

89-51

What species? Royal Tern How many? 1

Location? Iowa side of Miss. R. opposite Ogwaha, Ill. - Des Moines Co.

Type of Habitat? small island with mud shore + 1st light over river backwater

When? date(s): Sep. 6, 1989 time: 11:15 AM to 12:05 CDT

Who? your name and address: Peter G. Petersen, 235 McClellan Blvd Dow Jt for a total of 20 min

Others with you: Clint VanFossen + Sue Clewistine - Corps of Engineers

Others before or after you: Chuck + Jim Fuller, Gene Armstrong

Describe the bird(s) including only what you observed. Include size, shape, details of all parts (bill, eye, head, neck, back, wing, tail, throat, breast, belly, undertail, legs, feet). Also mention voice and behavior.

Large tern, just smaller + noticeably shorter-legged than Caspian standing within 1/2 m which was the same general shape. Bill orange-red without any black, a bit more orange than Caspian + also smaller + less heavy. Head white except for black thru eye on back of head. Body white, wings with light gray mantle, when viewed from below, lower ^{subtail} wings light to tips except trailing edge darker gray. Legs black. Tail white - depth of fork not seen. Not heard, seen perched on mud bar + in shallow water and flying.

Similar species; how eliminated:

Caspian terns - seen flying with + perched with this bird, showed more black on cap, dark tip on bill, dark gray on primaries on lower surface of wing. Legs longer than Royal - bill a more red color over most of surface, also larger than Royal.

Did any one disagree or have reservations about the identification? no
If yes, explain:

Viewing conditions: give lighting, distance (how measured), optical equipment.
Partly cloudy, sun to left at first, nearly behind observers later.
50-60 m. seen from grounded boat, 10x40 + 8x30 binoculars + 20x scope on
see also photos

Previous experience with species and similar ones: Have seen hundreds on Gulf coast + ^{gunstock}
observed 4 on July 1, 1989 in Costa Rica

References and persons consulted before writing description: Checked Geo guide prior
to observation

How long before field notes made? 5 min this form completed? 5 hours

Send completed form to Field Reports or CBC editor (address on back cover of Iowa Bird Life).

What species? Royal Tern How many? One (1)
 Location? Mississippi River island about 9 mi. upstream from Burlington, Iowa
 Type of habitat? Sandbar

When? date(s): Sept. 6, '89 time: 1:30 to 2:30 PM

Who? your name and address: Cal + Bernie Knight 425 Lec St., Iowa City, Ia.

others with you: _____

others before or after you: Chuck Fuller, Jim Fuller, Pete Petersen, ???

Describe the bird(s) including only what you observed. Include size, shape, details of all parts (bill, eye, head, neck, back, wing, tail, throat, breast, belly, under tail, legs, feet). Also mention voice and behavior.

While watching a group of 15 Caspian terns resting and preening on a sand bar I realized that one tern, about the same size of the others, had a bill that was orange thru out and thinner than the bright red black-tipped bill of the others; when the terns tilted their heads to preen their breast feathers this tern had a high white forehead while the Caspian's heads were black completely to the bill; also in stretching their wings ^{revealing the underside} (this tern did not show the dark primaries of the Caspians (much lighter); the birds were standing in 2"-3" water so leg color could not be determined; I did not see the bird fly.

Similar species and how eliminated:

Caspian Tern - See above

Orange bill: lighter under wing; Caspians never show an all white forehead

Did any one ~~disagree~~ or have reservations about identification? _____

If yes, explain: because bird was so far from normal salt water habitat.

Viewing conditions: give lighting, distance (how measured), and optical equipment:

Slightly Overcast; 60 yards over water (guess)

35-60 power Celestron Scope

Previous experience with species and similar ones: a number of times in Alabama + Texas (as recently as Jan. '89)

References and persons consulted before writing description:

How long before field notes made? _____ this form completed? 9-6-89 (7:00 PM)

MAIL TO: T. H. Kent, Field Reports Editor, 211 Richards Street, Iowa City IA 52240