



中国鸟类研究简讯

Newsletter of China Ornithological Society



中国动物学会鸟类学分会
China Ornithological Society



全国鸟类环志中心
National Bird Banding Center

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大石鸡 (*Alectoris magna*)
摄影 唐军



藏雀 (*Kozlowia roborowskii*)
摄影 张永



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基于红外相机技术的白冠长尾雉集群行为比较研究

2013年3月—2014年3月，我们在湖北广水平靖关村和河南董寨自然保护区利用红外相机技术对白冠长尾雉集群行为进行了研究。依据前期无线电遥测的结果，在两个研究地点分别选择了 $1\text{ km} \times 1\text{ km}$ 的样地，分别放置了25台红外相机进行监测。累计放置12,412个相机日，获得视频24,374段，其中有白冠长尾雉的视频有1,361段。结果表明，不同的集群群体中，个体数量为2只的群体所占比例最大，分别占平靖关和董寨总体数量的68.23%和72.79%。卡方检验表明，白冠长尾雉在平靖关的集群群体大小有极显著差异 ($\chi^2 = 322.776$, $df = 4$, $P < 0.001$)，在董寨的也存在极显著差异 ($\chi^2 = 252.750$, $df = 4$, $P < 0.001$)。白冠长尾雉的集群有三种方式：雄性集群、雌性集群和混合集群，其中单性集群为主要方式，混合性集群出现频次较少。在平靖关，雌群在夏季和秋季的遇见率较高，雄群在春季和秋季的遇见率较高；而在董寨，雌群只少量出现在夏季和秋季，雄群集中出现在春季且遇见率明显高于其他季节。卡方检验表明，平靖关的集群方式 ($\chi^2 = 76.607$, $df = 2$, $P < 0.001$) 存在极显著差异性，董寨的集群方式 ($\chi^2 = 101.838$, $df = 2$, $P < 0.001$) 也存在极显著差异性。平靖关的集群强度呈现明显的日节律变动，董寨的集群强度变化

相对平缓；两地的集群率日变化与集群强度变化趋势相反，单因素方差分析得出集群率在季节间差异不显著。但是，白冠长尾雉群体在两地对植被类型均有明显的选择性，其在平靖关主要选择灌丛和竹林，但在董寨自然保护区内则主要选择混交林与针叶林。

(北京林业大学 曹婉露 赵玉泽 徐基良)

四川山鹧鸪栖息地分析与预测

四川山鹧鸪 (*Arborophila rufipectus*) 是我国特产珍稀鸟类，国家I级重点保护野生动物，IUCN 濒危物种。我们应用卫星遥感影像解译技术对该物种的现实栖息地和潜在栖息地进行了分析和预测。结果表明，现存四川山鹧鸪分布格局自四川中南部向云南东北延伸，跨越金沙江，呈现西北-东南走向，分布区涉及大相岭山系南缘、小相岭山系东缘、凉山山系东北部、乌蒙山山系西部，行政区域涉及2省5市(州) 19县(区)。栖息地由10片现实栖息地和36片潜在栖息地组成，总面积约 $5,869\text{ km}^2$ 。“甘洛-金口河-峨边-马边-美姑”片和“雷波-马边-屏山”片是四川省境内呈南北布局的两大核心分布区，“绥江-永善-水富-盐津-大关”片为云南省境内的核心分布区。

(乐山师范学院 戴波；四川老君山国家级自然保护区 陈本平；四川大学 岳碧松)

缅甸灰腹角雉及其他雉类调查

灰腹角雉 (*Tragopan blythii*) 主要分布于缅甸和印度西部, 在我国, 云南与缅甸东北部交界的地带曾有调查记录, 藏南地区也有分布。2014 年 4—6 月, 我们在缅甸肯尼迪山和萨拉马蒂山对灰腹角雉及其他雉类开展了调查。肯尼迪山 (2,713 m) 位于钦邦北部, 这一地区我们共记录 7 个灰腹角雉分布点, 并对其中 2 个开展了灰腹角雉的实地调查。火是灰腹角雉的主要威胁。当地刀耕火种的农业生产方式使其栖息地主要演替为幼次生林和灌丛, 而灰腹角雉在这些环境没有分布, 仅分布于海拔 2,100 m 以上的原生森林斑块。狩猎和伐木也是灰腹角雉的威胁因素, 但程度远小于火的威胁。黑鹇和黑颈长尾雉

在每个村寨都有猎捕记录, 但是据当地人反映, 其种群数量下降非常明显。萨拉马蒂山 (3,840 m) 位于印缅边界, 是实皆省的最高峰。这一地区我们共记录了 6 种雉类: 灰腹角雉、黑鹇、红原鸡、灰孔雀雉、蓝胸鹑和棕胸竹鸡。灰腹角雉主要分布于海拔 2,000 m 以上的原始森林。我们调查的地区曾经是缅甸最偏远的, 在几年前, 还只能步行几天才能到达, 因而这些森林得以保留下来, 特别是在高海拔地区。现在公路正在逐渐修通, 将来可能成为灰腹角雉的主要威胁之一。此外, 刀耕火种和狩猎在这里已经有很长的历史, 但并未产生严重威胁, 但是当地人口增长速度很快, 灰腹角雉的生存状况可能会越来越糟。本研究由世界雉类协会资助。

(北京林业大学 王楠)



黄海生态区沿岸重要滨海湿地鸕鹚类的监测项目启动

世界自然基金会“黄海生态区沿岸重要滨海湿地鸕鹚类的监测项目”于 2014 年正式启动。该项目选择 4 个调查监测点，包括辽宁辽河口自然保护区、河北唐山南堡滨海湿地、天津滨海新区滨海湿地以及江苏南通市如东滨海湿地，由北京师范大学负责组织实施，上海观鸟会和辽宁辽河口国家级自然保护区的部分专家参与了野外调查工作。深圳华侨城为本项目提供了资助。

2014 年 4 月至 6 月，4 支调查队伍开展了第一个春季的野外工作，分别进行了 6 次的调查。在 4 个调查点共记录 46 种至少 30 万只鸕鹚类，其中优势物种为红腹滨鸕、大滨鸕、斑尾塍鸕、黑腹滨鸕、黑尾塍鸕、灰斑鸕、环颈鸕和红颈滨鸕。有 20 个鸕鹚类物种的中途停歇种群数量超过其全球或迁徙路线种群总数的 1%，比例较大的包括红腹滨鸕（占迁徙路线种群总数的 40%）、大杓鸕（占全球种群总数的 20%）、蛎鸕（占其迁徙路线种群总数的 19%）、大滨鸕（占其全球种群总数的 16%）、蒙古沙鸕（占迁徙路线种群总数的 12%）。记录到全球或地区受胁鸕鹚类物种有 17 个，包括勺嘴鸕（占全球种群总数的 3.3%）和小青脚鸕（占全球种群总数的 2.2%）等。

在 4 个调查点中，河北南堡湿地和辽宁辽河口湿地在春季迁徙期共有 39 种超过 25 万只鸕鹚类；江苏如东湿地春季有大量的鸕

鹚类物种（44 种），尤其是极度濒危物种勺嘴鸕目前已知最重要的迁徙停歇地；由于围垦，天津滨海新区滨海湿地已被严重破坏，鸟类数量下降严重，加强该地区受损湿地的恢复是一项非常紧迫的工作。

按照计划，该监测项目将持续三年，每年春秋季节各进行一轮监测。

（北京师范大学 雷维蟠 杨洪燕 张正旺）

卫星跟踪白枕鹤迁徙研究初报

白枕鹤（*Grus vipio*）被 IUCN 列为易危物种，主要繁殖在俄罗斯的西伯利亚南部、中国的东北地区和蒙古国东部地区。白枕鹤的东部种群经过中国的东北和朝鲜半岛，最后抵达日本鹿儿岛的出水市越冬，而西部种群迁徙经过中国的内蒙古、渤海湾沿岸以及一些内陆湿地等地区，最后抵达以江西鄱阳湖为主的长江中下游越冬地。白枕鹤全球种群数量约为 5,500~6,500 只（Birdlife International, 2014）。

为了确定白枕鹤离开繁殖地和到达越冬地的时间及其停歇地、越冬地和迁徙路线，了解其栖息地状况和繁殖地和越冬地使用情况，在美国林业署的资助下，国际鹤类基金会和蒙古国野生动物科学保护中心联合开展了“利用卫星跟踪技术研究白枕鹤的繁殖、越冬和迁徙”项目。项目于 2013 年 8 月在蒙古国彩色环志了 41 只白枕鹤，并为其中 3 只（1 成 2 幼）佩戴了卫星跟踪器，另外 3 只（2

成 1 幼) 佩戴了手机发射器。北京林业大学承担了该项目中的白枕鹤在中国迁徙停歇地的调查工作。

在 6 只佩戴发生器的白枕鹤中, 有 3 只佩戴卫星跟踪的白枕鹤(编号分别为 130948、130949、130950) 和 1 只佩戴手机发射器的白枕鹤(编号为 9530) 被回收到了信息。130948(幼鹤)、130950(幼鹤) 和 9530(成鹤) 分别于 10 月 7 日、10 月 7 日和 10 月 13 日抵达中国境内, 并且分别于 11 月 10 日、11 月 18 日和 11 月 4 日抵达越冬地鄱阳湖。130949(成鹤) 于 10 月 13 日抵达中国境内, 在 10 月 24 日从安徽省颍上县最后一次回收信息, 此后信号消失。

在白枕鹤 2013 年秋季迁徙期间, 对其重要的停歇地进行了 5 次调查。我们共发现了 3 个重要的停歇地。多伦县以南 30 km 处的莠麦农田是主要的觅食地, 而且农田周围的草场是白枕鹤可以利用的栖息地。在这个停歇地记录了 400 多只白枕鹤, 发现其中 6 只有彩环标记, 由于天气等原因, 没能确认是否戴有发射器。据当地居民称, 每年的春秋季节都有大批的白枕鹤在此停歇一个多月。白枕鹤会在渤海湾的河北沧州和天津北大港地区停留几天。在山东黄河三角洲国家级自然保护区的工作人员曾于 11 月 2 日和 10 月 15 日分别发现有 10 只和 32 只白枕鹤在此停歇, 其中 1 只是有彩色标记的。

此次调查证明了多伦县附近的栖息地是白枕鹤迁徙的重要停歇地, 但目前尚缺任何保护措施, 并面临着旅游开发和放牧的威胁。通过与 1990—1993 年白枕鹤卫星跟踪的迁徙路线(Harris et al, 2000; Fujita et al, 2004) 的比较, 我们发现渤海湾在白枕鹤迁徙中的地位有所下降, 可能与沿海经济开发和人为干扰加大有直接关系。我们同时也需要关注别的重要的停歇地, 例如北京密云水库: 2011 年秋季, 北京林业大学的研究人员曾经见到

1,200 只白枕鹤在此停歇。可能由于今年农业活动的影响, 没有发现大批白枕鹤在此停歇。

(北京林业大学 焦盛武 雷佳琳 贾亦飞 雷光春; 国际鹤类基金会 李凤山; 蒙古国野生动物科学保护中心 Nyamba Batbayar)

黄渤海区域迁徙鸕鹚类的现状及变化

滩涂湿地是鸕鹚类的重要栖息地, 一些种类的鸕鹚类除繁殖期外仅在滩涂湿地活动。黄渤海的滩涂湿地在春季支持了 200 万只以上的鸕鹚类停歇, 是亚太鸕鹚类迁徙路线上关键的区域。近年来大量的研究表明, 亚太迁徙路线上鸕鹚类的种群数量快速下降, 并认为这与黄渤海区域滩涂围垦开发所导致的栖息地丧失有关。然而, 相关的工作主要是在越冬地开展, 尚缺在黄渤海地区的深入研究工作。

2013 年和 2014 年春季, 对南至长江口北至鸭绿江口的整个黄渤海区域的鸕鹚类种类、数量、分布开展了全面的调查。共记录到鸕鹚类 42 种 50 余万只。鸕鹚类主要分布于鸭绿江口、双台河口、江苏南通滩涂、黄河三角洲和渤海湾西北部区域。与十年前相同时期、相同区域的调查记录相比, 双台河口和鸭绿江口的鸕鹚类数量有所增加, 江苏盐城、渤海湾、黄河三角洲和莱州湾等区域的滩涂记录的鸕鹚类数量有所下降。这表明黄渤海地区鸕鹚类的分布已发生了很大变化。

本调查结果了解鸕鹚类的现状及变化提供了第一手的资料。在下一步的工作中将结合不同调查区域的环境变化, 特别是围填海的情况, 对调查数据做进一步分析, 以了解影响鸕鹚类分布及种群数量变化的关键因子。

(复旦大学 陈莹 马志军)



2013 年我国鸟类环志 444 种 107,394 只

2013 年全国有 50 个单位开展了鸟类环志工作, 共环志鸟类 444 种 107,394 只, 其中雀形目鸟类环志数量最多, 共 251 种 9.6 万只, 鹤形目 18 种 0.385 万只, 鸨形目 51 种 0.32 万只, 猛禽 34 种 0.17 万只, 雁形目 23 种 717 只, 分别占环志总数的 89.32%、3.58%、2.96%、1.6%、0.67%。

环志数量居前 10 为的种类主要有白腰朱顶雀 (*Carduelis flammea*) 22,893 只, 灰头鹀 (*Emberiza spodocephala*) 7,721 只、红胁蓝尾鸂 (*Tarsiger cyanurus*) 6,154 只、黄眉柳莺 (*Phylloscopus inornatus*) 5,266 只、燕雀 (*Fringilla montifringilla*) 4,094 只、黄喉鹀 (*Emberiza elegans*) 3,392 只、红尾伯劳 (*Lanius cristatus*) 3,157 只、北朱雀 (*Carpodacus roseus*) 2,566 只、池鹭 (*Ardeola bacchus*) 2,343 只。

2013 年彩色标记鸟类 141 种 7,795 只, 主要种类有雀形目鸟类 64 种 5,220 只、鸨鹬类 42 种 2,231 只、雁鸭类 14 种 211 只、鸨

形目 7 种 77 只、鹤形目 6 种 14 只、隼形目 4 种 9 只。珍稀濒危鸟类的彩色标记主要有东方白鹳 (*Ciconia boyciana*) 30 只、丹顶鹤 (*Grus japonensis*) 4 只、蓑羽鹤 (*Anthropoides virgo*) 3 只、灰鹤 (*Grus grus*) 3 只、黑颈鹤 (*Grus nigricollis*) 1 只、大鸨 (*Otis tarda*) 2 只等。

(全国鸟类环志中心 侯韵秋 陈丽霞)

2013 年河南董寨保护区鸟类环志

2013 年董寨保护区环志站共环志鸟类 6,304 只, 隶属于 9 目 27 科 77 种。其中新捕隶属于 9 目 27 科 77 种计 5,638 只; 重捕 2 目 12 科 30 种计 666 只。另外捕获归家鸟类北红尾鸂、黄喉鹀、黄眉鹀、灰头鹀、黄腰柳莺等 5 种计 7 只。11 月份于荒田保护站荒田环志点捕捉 1 只白喉林莺, 据文献资料记载为河南省鸟类新记录。

(河南东寨国家级自然保护区环志站 溪波 杜志勇 袁德军)



历史和生态过程共同决定横断山区鹇类物种丰富度分布格局

物种丰富度垂直分布格局和机制的研究一直是生态学和生物地理学研究的热点。横断山区地理位置特殊（位于古北界和东洋界交汇区），动物区系复杂；并且海拔落差巨大（70~7,556 m）、动植物垂直分布明显，是研究物种多样性空间分布格局和机制最理想的地区之一。

通过对横断山区鹇类的系统发育关系和物种分化时间进行分析，结合祖先性状重建的方法，估算了不同海拔段的物种多样化速率、拓殖时间和拓殖频率，并探讨相关历史过程与物种丰富度之间的关系。研究还新改进了计算物种拓殖时间和拓殖频率的方法，并基于此方法模拟了物种丰富度垂直分布格局在过去 1,200 万年不同古温度条件下的演变模式。

本研究还检验了面积、空间几何限制作用、气温、降水、季节性和植物生产力等现今生态因子对本地区鹇类物种丰富度垂直分布格局的塑造作用。结果表明：（1）横断山区鹇类物种丰富度在海拔 1,000~2,500 m 之间最高，重建的古物种分布特征表明横断山区鹇类祖先物种最先拓殖于中低海拔地区。不同海拔段的物种多样化速率差别不显著，因而不是造成不同海拔物种丰富度出现差异的主要原因；但不同海拔区段的物种拓殖频率

和拓殖时间与物种丰富度之间具有很高的正相关性。（2）与面积和空间的几何限制作用相比，气候和植物生产力是塑造现今横断山区鹇类物种丰富度格局的主要生态因子。（3）中低海拔地区鹇类比高海拔地区鹇类分化时间早，中低海拔地区分布更多“古老”类群；而林线周围高山区的鹇类是新近形成物种，代表“年轻”类群。（4）横断山区鹇类物种分化速率在 4~6 百万年前达到最大，鹇类的物种快速分化可能为当时横断山区的隆升提供了新证据。与先前方法相比，研究新提出的 CRRL（Colonization based on Reconstructed Range Size and Location）方法在计算拓殖频率和拓殖时间时考虑了祖先物种对临近地区的扩散拓殖，其不仅是探讨历史拓殖事件对物种丰富度影响作用更理想的方法，也为探讨物种丰富度的历史分布格局提供了新的借鉴和参考。研究表明物种进化的历史过程和现今生态过程在塑造横断山区鹇类物种丰富度格局时都起了重要作用。

研究为探讨生物多样性格局的历史机制提供了新的方法，也为研究气候变化对物种多样性格局的影响提供了重要的参考。相关研究结果目前已在线发表于 *Global Ecology and Biogeography*。

（中国科学院动物研究所 吴永杰 屈延华
雷富民）

华北鸟类新纪录——乌鹃

2014年5月12日,在河北省西部驼梁国家级自然保护区进行鸟类资源调查时,于平山县合河口乡附近(38°37'08"N, 113°48'02"E, 海拔840 m)发现一只体长约25 cm,类似黑卷尾的鸟。在距其约50 m的位置,利用10×42双筒望远镜观察并用Canon 5D III接400 mm定焦镜头拍照记录:该鸟通体黑色且具蓝色金属光泽,头部较初级飞羽和尾羽颜色更深。喙黑色,脚蓝灰色,尾浅叉状,尾下覆羽具白色横斑。通过查阅《中国鸟类野外手册》、《中国鸟类志》等资料,确定该鸟为乌鹃华南亚种。这是首次在中国华北地区记录到乌鹃。

乌鹃属典型的东洋界鸟类,国外分布于印度、尼泊尔、缅甸、泰国、斯里兰卡、菲律宾、马来西亚以及印度尼西亚的苏门答腊、爪哇等国家和地区。国内分布于西藏、四川、云南、贵州、广西、福建、广东、香港和海南。以往认为,乌鹃在我国分布的北限为四川省北部。近年来在我国中东部地区的浙江、江苏和湖北也先后发现了乌鹃的分布(郑光美, 2011; 中国观鸟记录中心, 2010, 2012),说明其分布区有向东北部扩展的趋势。此次在河北省驼梁国家级自然保护区观察到乌鹃,意味着其分布范围向北扩展了近1,000 km。

(河北师范大学 孙砚峰 李东明 吴跃峰)

陆桥岛屿生境中繁殖鸟类的物种周转研究

MacArthur-Wilson 岛屿生物地理学理论认为岛屿上的物种由迁入率和灭绝率决定,而且迁入率取决于岛屿的隔离度(距离效应),以及物种的灭绝率取决于岛屿面积(面积效

应)。其他假说认为岛屿面积同时能影响迁入率(目标效应),隔离度亦能影响灭绝率(营救效应),目标效应和营救效应甚至有可能占据主导地位。本研究对浙江千岛湖岛屿上长期调查的繁殖鸟类群落开展研究,以期探讨岛屿生物地理学理论所预测的迁入-灭绝动态,以及物种周转率和发生率。我们在2007年至2012年对千岛湖37个岛屿开展了繁殖鸟类调查,记录繁殖鸟类的物种、数量及繁殖行为信息,并运用多重变量逻辑斯蒂回归模型和最大似然法估计每个岛屿的物种迁入率、灭绝率以及物种周转率和发生率,并分别探讨与岛屿面积和隔离度的关系。

研究结果表明:(1)灭绝率随着岛屿面积的增大而减小;(2)迁入率亦随着岛屿面积的增大而增大;(3)总体上,所有研究岛屿都具有较高的物种周转率,并且物种周转率随着面积的增大而减小,随着隔离度的增大而增大;(4)物种库周转由于受研究区域物种库的数量所控制(分母为固定的物种库物种数),随着岛屿面积增大而增大,即表明物种周转的事件数随岛屿面积的增大而增加;(5)发生率(类似于物种丰富度)亦随着岛屿面积的增大而增大。

本研究中,岛屿面积是决定迁入率和灭绝率的主要环境因子,而隔离度在预测迁入率、灭绝率、物种周转率和发生率中均相对不重要。这可能跟千岛湖相对较小的面积尺度(约580 km²)、较为单一的植被生境和鸟类较强的扩散能力有关。因此,我们认为本研究的实际观察结果与预测结果之间的迁入率和灭绝率差异,或者与其他类似研究的结果差异可能与研究岛屿的特定生物地理特征有关。

详见2014年的Journal of Biogeography (doi: 10.1111/jbi.12379)。

(浙江大学 斯幸峰 丁平)

红嘴相思鸟的反寄生适应

已有研究表明,杜鹃宿主的卵色多态性是宿主反寄生适应的重要策略之一。宿主可通过增加卵色的窝间变异,减少窝内变异,使得杜鹃的卵色模拟变得困难。如果没有了杜鹃寄生的压力,宿主的卵色变异是否会发生改变?2012年4—8月,我们分别在贵州宽阔水(原产地种群)和美国夏威夷(引入种群)对红嘴相思鸟的卵识别能力和卵色变异进行了比较。结果表明,100多年后,红嘴相思鸟的卵识别能力在没有杜鹃寄生压力的引入地仍保持100%,但其卵色的窝内、窝间变异发生了变化:窝内变异明显增加。这一结果发表在2014年的 *Ecology and Evolution* 上。

(海南师范大学 杨灿朝 梁伟;中山大学 刘阳;美国加州大学 曾丽瑾)

杜鹃色型的多态性对宿主反寄生行为的影响

欧洲已有的研究表明,许多杜鹃的宿主能够识别杜鹃,并强烈攻击在其巢附近活动的杜鹃。许多杜鹃具有灰色和棕色等多种色型,这被认为是对宿主识别和攻击杜鹃的一种适应。在中国由于杜鹃的种类、大小和羽色多种多样,这很可能使得宿主不仅“目不暇接”和“眼花缭乱”,而且“防不胜防”,于是对中国的许多宿主而言,最好的策略是识别好自己的卵,而不攻击杜鹃。因为攻击一种色型的杜鹃会使另一种不同色型的杜鹃获益。

我们分别在多杜鹃系统的广西和单一杜鹃系统的台湾,对中杜鹃的重要宿主黄腹鹪莺进行了比较研究,结果支持我们的假说:广西和台湾的鹪莺均识别杜鹃卵,但广西的鹪莺不攻击杜鹃,而台湾的鹪莺

强烈攻击杜鹃。而且,台湾的鹪莺能区分中杜鹃和大杜鹃。这一研究发表在2014年的 *Naturwissenschaften* (doi 10.1007/s00114-014-1209-8) 上。

(海南师范大学 杨灿朝 王龙舞 梁伟;台湾东华大学 许育诚 郑舜仁;法国 A. P. Møller)

小白额雁的氮平衡:低能量食物并未为越冬小白额雁带来高氮摄入

当主要食物缺乏某种必需元素时,动物可能会更换另一种食物来补充该必需元素,从而使其呈现异常分布。对雁类来说,这种必需元素通常为氮。本研究利用植物中不可消化的内源标记物,计算了两种觅食地上小白额雁(*Anser erythropus*)的氮平衡。结果显示,在整个越冬期,能够为小白额雁带来正能量平衡的食物也能够带来正的氮平衡,而不能提供足够能量摄入的食物,亦不能提供足够的氮摄入。因此,小白额雁取食苔草并非为了摄入氮元素,而可能是为了避免人为干扰而采取的权宜策略。见 *Journal of Ornithology*. 155:707-712.

(中国科学院生态环境研究中心 王鑫 曹垒 庄绪亮 孟凡娟 丹麦奥胡斯大学 Anthony D. Fox;兰州大学 丛培昊)

中华秋沙鸭(*Mergus squamatus*)在中国越冬地的种群数量和分布

中华秋沙鸭(*Mergus squamatus*)是潜水鸭类中受胁最严重的物种,受胁等级为濒危。近期对该物种在边疆滨海、俄罗斯远东、中国及朝鲜的繁殖地进行调查,结果显示种群总数约为4,600只。我们首次发表了该物种在

中国和韩国的越冬分布数据,列出了2000—2011年间156条观察记录和11条越冬位点记录(利用地理定位信息系统得到)。这些数据来自中国16个省份,其中以江西省最为集中(共18个位点97条记录)。这两种来源的数据,表明了中华秋沙鸭对越冬地点的选择在某种程度上较为固定。这一般分布在人为干扰程度较低的丘陵和山区,河流宽度为50~350 m,清澈且水流湍急伴有浅滩、岛屿或沙洲。数量最多的调查位点约有370~770只中华秋沙鸭,仅占估计总数的8~17%,这说明了我们对该物种的越冬分布缺乏了解。鉴于该物种的分布广泛且分散,且其越冬地易受到水坝建设、砂石开采、工业与环境污染、过度捕捞等人类活动的威胁,故需要迫切定义该物种的越冬范围。同时,提出了重要的物种保护问题,即如何去保护这样一个种群不高度集中分布并可能需要流域尺度的自然保护措施以有效地保护其现有分布。见Bird Conservation International, DOI: 10.1017/S0959270913000622.

(中国科学技术大学 Mark Barter 曹垒;
中国科学院生态环境研究中心 庄绪亮 王鑫
曹垒; WWF 中国武汉办公室 雷进宇;
俄罗斯科学院北方生物学问题研究所 Diana
Solovyeva; 丹麦奥胡斯大学 Anthony D.
Fox)

黑眉长尾山雀和银脸长尾山雀在历史上存在种间杂交现象

已有研究表明黑眉长尾山雀和银脸长尾山雀的种间线粒体遗传距离很小,甚至小于一些长尾山雀的种内遗传距离。通常情况下,造成物种间遗传距离偏小的原因有两种:不完全的谱系分化和基因渐渗。区分两者较为困难,因为它们能产生相似的遗传信号。中

国科学院动物研究所鸟类学研究组利用近些年发展起来的IM(isolation-with-migration)溯祖模型,并结合多遗传标记和生态位模型,揭示两种长尾山雀在历史上存在种间杂交和基因渐渗现象,之后在选择扫荡和/或遗传漂变的作用下,形成了较低的种间遗传距离。这种种间杂交可能主要发生在雌性银喉长尾山雀和雄性黑眉长尾山雀之间。末次最大冰期时两种长尾山雀均向四川盆地等低海拔地区扩张,潜在接触带面积扩大。末次最大冰期后,两种长尾山雀向高海拔地区退缩,潜在接触带面积减小。末次最大冰期时分布区的扩张可能促进了种间杂交的形成,而冰期后分布区的缩小则促进了遗传分化的产生。尽管两种长尾山雀在历史上存在较强的基因流,近期的基因交流却非常小,因此近期种间杂交可能不存在或者频率很低。上述研究结果已发表于Frontiers in Zoology杂志。

(中国科学院 王文娟 屈延华)

塔克拉玛干沙漠公路对白尾地鸦的分布和行为有显著影响

塔克拉玛干沙漠位于我国新疆南部的塔里木盆地,是世界第二大流动沙漠,横穿沙漠的沙漠公路全长466 km,是我国最长的沙漠公路。白尾地鸦(*Podoces biddulphi*)是主要分布在我国塔里木盆地的中国鸟类特有种,数量仅为4,100~6,700只。本研究通过研究沙漠公路对白尾地鸦数量和警戒行为等方面的影响,探讨了公路对白尾地鸦的影响。研究表明:(1)距离沙漠公路越近,白尾地鸦的密度越高,沙漠公路对白尾地鸦具有“正效应”。这种“正效应”与青藏公路对野生动物影响的研究结果类似。塔克拉玛干沙漠气候干燥、植被贫瘠,白尾地鸦等鸟类的分布密度也较低,而随着沙漠公路的修建

和通车,尤其是沙漠公路防护植被带为白尾地鸦提供了更多的食物来源和适宜的栖息环境,这对白尾地鸦有利。(2)人类活动显著影响和改变了白尾地鸦的警戒行为。在不同强度人类活动干扰下,白尾地鸦的警戒距离(alert distance)和惊飞距离(flight initiation distance)也不同。在沙漠腹地远地沙漠公路的地区比沙漠公路周边白尾地鸦的警戒距离和惊飞距离要更远,而在沙漠公路沿线的人类定居点,白尾地鸦的警戒距离和惊飞距离最近。该结果表明随着沙漠公路的修建和通车,人类活动逐渐增多,白尾地鸦与人类接触的机会更多,在这种情况下它们更适应与人类的接触,也更不怕人,这体现出鸟类对人类活动干扰的适应,同时也反映出人类活动干扰对野生动物行为习性的改变和影响。

(中国科学院新疆生态与地理研究所 徐峰
马鸣)

基于3S技术的扎龙保护区丹顶鹤(*Grus japonensis*) 营巢生境适宜性分析

2012—2013年的3—5月间野外现地收集丹顶鹤(*Grus japonensis*)巢址分布点以及微生境数据,利用2013年扎龙保护区Landsat-8 TM遥感影像提取环境变量,结合DEM高程数据、人为干扰数据,在MAXENT模型中进行丹顶鹤营巢生境分布预测,输出结果在ArcGIS中重分类得到扎龙保护区适宜营巢生境分布图。通过对比2004年与2013年生境质量,定量分析了扎龙保护区10年间丹顶鹤适宜营巢生境的变化情况。主要研究结果包

括:

1. 模型经过ROC曲线检验,检验结果表明训练集、验证集AUC值分别为0.901、0.935,均为优秀水平。TSS检验值为0.775,达到良好水平。Jackknife检验结果表明:绿色植被指数、土壤湿度指数、距离道路距离是影响丹顶鹤营巢分布的主要因子,海拔、坡向影响次之,而土壤亮度指数、坡度对于丹顶鹤营巢影响最低。

2. 2013年扎龙保护区内丹顶鹤不适宜生境面积为122,518 hm²,低适宜生境面积为51,624 hm²,适宜生境面积为31,766 hm²,最适宜生境面积为4,090 hm²,其中适宜及最适宜生境的面积之和为35,857 hm²。核心区、缓冲区、实验区内最适宜、适宜面积总和分别为22,776、5,432、7,648 hm²。

3. 通过MAXENT模型结果中的生境适宜度指数较高、较低巢址的微生境数据对比,结果表明植被高度、植被直径、植被密度、干扰距离、明水面面积、明水面距离、剩余苇丛距离、剩余苇丛面积、剩余苇丛密度、剩余苇丛高度的P值均小于0.05,存在差异。

4. 2013年扎龙保护区内芦苇生境面积为135,348 hm²,比2004年增加了35,727 hm²。2013年总的适宜生境面积占保护区面积的17.08%,比2004年增加了3.18%。2013年扎龙保护区内丹顶鹤容纳量为283对,相比于2004年的191对增加了92对。10年间由于生态补水等一系列管理,扎龙保护区内适宜营巢生境质量有了一定的提高,更加有利于丹顶鹤的繁殖。

(东北林业大学 邹红菲 王磊 吴庆明)

国内动态

试验遥控微型飞行器首次拍摄天山兀鹫巢穴

2014年4—5月,项目组多次前往新疆后峡、和硕、和静等地考察高山兀鹫繁殖生态(国家自然科学基金项目)。并且首次成功试用四旋翼遥控飞行器(Phantom)拍摄高山兀鹫窝。

拍摄地点在新疆和静县克尔古提乡B-1号巢区,距离和硕县城约46 km,海拔3,000 m。队员负重徒步2~3 km,携带小型飞行器和拍摄装置,沿着崎岖山路,到达塔赫哈提沟(松树沟),接近巢区。崖壁朝阳,对面是雪岭云杉林。

这次使用的超小型飞行器是一种可遥控的四旋翼飞行器。型号: Phantom(精灵、幽灵),厂家简称: 大疆(dji),价格: 2,500~5,000元之间。我们是第一次使用这种“会飞的照相机”(黑狗——GoPro, Hero III),可持续飞行7~10 min,快速上升50~100 m,可接近高山兀鹫的巢窝至10~20 m。我们携带了四套电池、两台微型录像机(GoPro, Hero III),可以飞行至少4次。

经过调试、操作、成功飞行了4次,拍摄到20 min 高清录像。因为海拔3,000 m 高原气压太低(和静克尔古提B-1区),电池膨胀、发热,山区经常有阵风3~4级,飞机出现漂移、失控、触崖等特殊情况。

窝中的高山兀鹫对飞行器非常好奇,一直在探头观望,其中一只成鸟飞近、盘旋、

环绕、接近,并不害怕这个超小型嗡嗡作响的飞行器。经过三个多小时试飞,拍摄到20多分钟高清录像,圆满完成野外观测工作。

之前,我们分别于2月9—12日、3月12日、4月21—24日,与当地向导在和静及和硕等地寻找巢穴失败,攀岩失败。显然,利用飞行器拍摄,可以降低危险,快速统计和获得窝结构、窝卵数、窝雏数、成活率、繁殖周期、幼鸟不同发育阶段等信息。



马鸣等人成功试用四旋翼遥控飞行器(Phantom)拍摄高山兀鹫窝



在新疆天山,首次成功试用四旋翼遥控飞行器(Phantom)拍摄高山兀鹫窝



利用四旋翼遥控飞行器 (Phantom) 携带微型相机拍摄高山兀鹫窝 (马鸣摄)



四旋翼遥控飞行器 (Phantom) 与微型录像机 (GoPro, Hero III) (马鸣摄)



利用四旋翼遥控飞行器 (Phantom) 携带微型相机拍摄高山兀鹫窝 (马鸣摄)



利用四旋翼遥控飞行器 (Phantom) 升空拍摄高山兀鹫窝 (马鸣摄)

(中国科学院新疆生态与地理研究所 马鸣)

广东组队参与香港观鸟大赛2014

2014 年 1 月 25 日, 世界自然基金会香港分会 (WWF) 在香港举行一年一度观鸟筹款盛会的“香港观鸟大赛 2014”。今年比赛邀请了来自我国台湾、澳门、广东以及韩国的观鸟爱好者前往挑战, 共有 13 支队伍参与角逐。按组委会要求, 每队参赛队伍由 4 人组成。华南濒危动物研究所邹发生研究员团队的张强、张敏, 中山大学刘阳老师的学生黄恺驰,

与常居深圳的法国资深观鸟爱好者 Jonathan Martinez 组成“广东队”参赛。

比赛由当天早上 6:30 分起至晚上 18:30 止, 历时 12 h; 观鸟地点在香港范围内任意选定, 包括米埔自然保护区、大埔滘自然护理区、塱原湿地等多个观鸟热点; 各组要记录看到或听到的鸟类, 最终以记录到鸟类的总数决出胜负。今年, 香港本地队伍“小麻雀队”由于熟悉环境, 技胜一筹, 以 160 种取得桂冠。广东队作为非本地队伍, 通过领队 Jonathan 及其友人提前踩点、合理安排路线以及众人努力, 也成功记录到 137 个种类, 其中包括有难得一见的白眼潜鸭 (*Aythya nyroca*), 以及在香港能见到的全部 5 种树莺, 荣获第 4 名, 名次居非本地队伍之首。

香港观鸟大赛历史悠久, 至今已 30 周年, 大赛组织方照顾周到, 值得学习。我们在参赛过程中, 得到了热情的接待和妥善的安排, 与其他队伍相互交流, 同时也感慨香港至今还能保留大片生态环境优良的自然栖息地, 自然管理和科研人员的努力和经验值得参考。

(华南濒危动物研究所 邹发生)

Chinese Birds 更名为 *Avian Research* 获批

2014 年 4 月, 原 *Chinese Birds* 编辑部得到国家新闻出版广电总局的批文, 同意主办单位北京林业大学和中国动物学会关于变更原刊名 *Chinese Birds* 为 *Avian Research* 的申请。

变更刊名的决定是于 2013 年 11 月在杭州召开的期刊编委会议上作出的。*Chinese Birds* 创刊几年来, 一直存在稿源不充足、引用率偏低等问题。为了吸引更多的国际稿件, 切实扩充稿源, 提升稿件质量和引用率, 编委会决定变更刊名并重组编委会阵容。会后经商讨, 确定新刊名为 *Avian Research*, 并向主管部门教育部和新闻出版广电总局提出了申请。

目前, *Avian Research* (CN 10-1240/Q, ISSN 2055-6187) 已完成编委会的组建, 并接受国内外投稿, 网址为: www.avianres.com。该刊将搭载 BioMed Central 出版平台, 采用开放获取 (Open Access) 模式出版, 出版费用均由主办单位承担, 无需作者支付任何费用。

(*Avian Research* 编辑部 程朋军)

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国际动态



世界雉类协会最新动态

世界雉类协会 (World Pheasant Association) 是一个致力于全球所有鸡形目鸟类保护、研究和饲养繁殖的国际组织。除了典型的雉类外，鸡形目的鸟类还包括鹌类、松鸡、鹧鸪、鹌鹑、冢雉和凤冠雉，其中多数种类羽色艳丽，很多种类属于全球受胁物种。世界雉类协会成立于 1975 年，总部位于英国，现任会长为我国著名鸟类学家郑光美院士，现任主席为 Keith Chalmers-Watson 先生。我国早在上个世纪 80 年代就与该组织进行了交流与合作。1991 年，中国动物学分会鸟类学分会于正式加入世界雉类协会，成为其团体会员之一。2007 年我们在四川成都成功地承办了第五届鸡形目鸟类国际学术研讨会。近期，

世界雉类协会副会长 John Corder 先生来华访问，我分会副理事长张正旺教授与其进行了交流。据了解，世界雉类协会将积极支持中国珍稀濒危雉类的研究和保护工作，尤其在濒危雉类的饲养繁殖方面愿意提供技术支持。2015 年是该组织成立四十周年，世界雉类协会将在其总部举办隆重的纪念活动，届时将邀请中国专家参加。此外，世界雉类协会将于 2016 年继续举办国际学术研讨会。鉴于原来的候选地点菲律宾的巴拉望省组织方面出现问题，该组织正在寻找新的承办单位，我国有望承办这次会议。希望国内相关单位积极申请，具体事宜请与鸟类学分会秘书处联系。

(北京师范大学 张正旺)



《中国鸟类图鉴》便携版出版

继 2013 年《中国鸟类图鉴》上、中、下三卷出版之后, 2014 年 7 月, 由我会会员曲利明先生主编的《中国鸟类图鉴》便携版(书号 ISBN7-80691-940-8)由福建海峡书局出版, 并于 7 月 16 日在香港国际书展举行了首发仪式。该书汇集了一本中国境内有观察记录野外鸟种图片的工具全书。本书收集中国野外鸟种约 1,414 种, 图片 1,800 多张, 文字记录鸟种 1,435 种, 全书 560 码, 采用 32 开本图书标准版本印制。书中给了每个鸟种中文和英文, 以及种和亚种拉丁学名。对鸟类的分类和分布、生活特性、保育现状等各种信

息进行了精辟梳理、分类及编排。本书的照片来自中国大陆、台湾地区、香港地区以及国外 20 多个国家 100 多名观鸟爱好者、摄影者、鸟类研究学者、及全国(含台湾地区、香港地区)15 家观鸟组织全程鼎立参与, 共同努力打造的一部鸟类图书精品。本书轻便, 查找便捷, 适合从事野外观鸟、拍鸟、鸟类学教学、科研以及从事农业、林业、环境保护、野生动物管理等领域的专业人员使用。也可以为大专院校动物学、生态学、保护生物学等有关的师生提供参考。对美术院校、传统工艺美术提供更准确的鸟类形态标本。

(中山大学 刘阳)



中国青年鸟类学家研讨会暨第十届“翠鸟论坛”会议通知

第十届“翠鸟论坛”将于 2014 年 8 月 14—16 日在北京师范大学举办。本次会议由中国动物学会鸟类学分会主办，北京师范大学承办，北京动物学会和北京动物园协办。论坛的主题为：“鸟类多样性与适应性演化”。

会议分报告交流、墙报展示和师生研讨三项内容。

报告交流由研究生主持和报告。墙报展示共设两个单元（每个单元 30 分钟），每位展示者进行 3 分钟的介绍。所有报告结束后，由每个参会单位投票评选出金翠鸟奖、银翠鸟奖、优秀报告奖和优秀墙报奖，并进行颁奖。师生研讨单元为圆桌讨论会，由各领域专家和同学们就感兴趣的科研话题进行研讨交流。

论坛期间，还将举行软件和仪器培训、观鸟友谊赛和羽毛球比赛等活动。

会议不收注册费，往返订票、旅费及食宿费用自理，会议组织者可为参会学生联系相对便宜的旅馆。

报名者需为在读研究生，每位导师的报

名研究生不超过 4 人。总名额：70 人。报名时必须提交报名回执（扫描版和电子版）及研究摘要，所有文件须以“单位+姓名”命名，发给王鹏程（wpc@mail.bnu.edu.cn）。经专家委员会研究讨论后，遴选 25-30 位学员进行口头报告。每位同学讲述 15 分钟，提问环节 5 分钟。未入选口头报告的同学可提交墙报申请。

报名截止日期：6 月 30 日。

报名表经审核后，7 月 25 日公布参会名单和口头报告入选名单。

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中国动物学会第十七届全国会员代表大会暨学术讨论会第二轮通知

各省、自治区、直辖市动物学会、学会各分会、专业委员会及学会会员代表：

2014 年是中国动物学会成立 80 周年，理事会决定于 2014 年 11 月 17—20 日上午在广州市召开中国动物学会第十七届会员代表大

会暨学术讨论会，会期 3 天半（包括 1 天报到）。

主办单位：中国动物学会

承办单位：广东省动物学会、中山大学、华南濒危动物研究所（广东省昆虫研究所）

一、会议主要内容

1. 学术交流专题

(1) 水产动物健康养殖专题: 就水产动物良种繁育与遗传育种、水产动物营养与饲料、水产动物病害防控、健康养殖与环境等研讨(由比较内分泌学专业委员会林浩然院士、广东省动物学会何建国教授主持)

(2) 脊椎动物生态、适应与进化(由兽类学分会李明研究员、鸟类学分会张雁云教授、两栖爬行学分会常青教授联合组织);

(3) 水生动物资源可持续利用(由贝类学分会、甲壳动物学分会、鱼类学分会联合组织);

(4) 生殖生物学与发育生物学研讨(由生殖生物学会、细胞与显微技术学分会孙青原研究员、杨增明教授和发育生物学专业委员会张建研究员联合组织);

(5) 纤毛虫生物多样性与分子生物学(由原生动物学分会宋微波教授、梁爱华教授、缪炜研究员联合组织)

(6) 寄生虫病疫苗——回顾与展望(由寄生虫学专业委员会陈启军教授、索勋教授联合组织)

(7) 进化与保护生物学(由生物进化理论专业委员会吕植教授、姚锦仙讲师联合组织)

(8) 青藏高原野生动物研究(由蒋志刚研究员、胡慧建研究员联合主持)

(9) 动物交流及其适应性进化(由冯江教授、王丁研究员联合主持)

(10) 原始脊索动物——文昌鱼研究专题研讨(由张士璠教授、王义权教授、谭训刚副研究员联合组织)

(11) 东北虎保护及猎物种群现状研究(由孙海义教授、姜广顺教授、黑龙江省动物学会联合组织)

(12) 动物学教学现状与改革研讨(由许崇任教授、徐存拴教授组织)

(13) 野生动物基因组学青年科学家论坛

(由詹祥江研究员、刘阳副教授、吴琦副研究员、施鹏研究员联合组织)

(14) 人畜共患寄生虫和寄生虫病(由中山大学“热带病防治研究”教育部重点实验室伦照荣教授和李学荣教授负责,赖德华副教授协助)

(15) 动物学博士生论坛(由中山大学、中国动物学会主办)。拟资助 40 名在读动物学博士生,欢迎踊跃提交论文摘要和论文。经审查符合条件,将免会议注册费并免费提供参会期间的食宿(限 3 人一间)。详情见中山大学动物学博士生论坛实施方案、中山大学研究生院 <http://graduate.sysu.edu.cn/> 和生命科学学院网页 <http://lifescience.sysu.edu.cn/main/default/index.aspx>。

2. 修改中国动物学会会章

3. 审议中国动物学会第十六届理事会工作报告及财务报告

4. 选举中国动物学会第十七届理事会理事,召开第一次理事会会议,选举常务理事,召开第一次常务理事会会议,选举正、副理事长、常务理事、秘书长

5. 召开中国动物学会各分会、专业委员会主任委员、负责人、秘书长及各省、自治区、直辖市动物学会理事长、秘书长联席会议,研讨学会今后工作思路与设想

二、会议论文摘要征集

学会将在会前刊印中国动物学会第十七届全国会员代表大会暨学术讨论会论文摘要汇编,为内部发行。现向广大会员、动物学科技工作者征集论文摘要,同时向参加动物学博士生论坛(由中山大学、中国动物学会主办)者征集论文摘要和论文,论文及论文摘要均不收取审稿费及版面费。

1. 论文摘要格式要求

1,200 字以内,使用 Word 系统排版录入,页边距为(上下各 3 cm、左右各 2.3 cm)。文

中尽量不用图表, 不附参考文献。文责自负。

题 目: (三号黑体居中)

作 者: (四号仿宋居中)

作者单位: (五号宋体居中, 含城市名称, 邮政编码并用逗号分开, 外面括号; 如有两个以上作者, 作者间用分号分开)

正 文: (五号宋体字, 单倍行距)、可分段落。文中所用计量单位, 一律按国际通用标准或国家标准, 并用英文书写, 如 km^2 , kg 等。面积请勿用“亩”表示, 而要换算为公顷, 用 hm^2 表示。文中年代、年月日、数字一律用阿拉伯数字表示。

关键词: 摘要后附关键词, 关键词之间用分号间隔。

2. 论文摘要及论文提交方式及截止日期

(1) 论文摘要请通过中国动物学会主页 (<http://www.czs.ioz.ac.cn>) 左侧菜单栏“学术

会议系统”提交 (详见附件 1) 或发送至中国动物学会秘书处 czs@ioz.ac.cn 电子信箱, 截止时间为 2014 年 9 月 10 日。提交论文摘要时请注明所投稿的专题组别。

(2) 参加“动物学博士生论坛”(由中山大学、中国动物学会主办) 并提供论文全文 PDF 者, 除可以通过中国动物学会主页 (<http://www.czs.ioz.ac.cn>) 左侧菜单栏“学术会议系统”提交 (详见附件 1), 也可通过 czs@ioz.ac.cn, iszs001@aliyun.com 电子信箱提交, 截止时间为 2014 年 9 月 10 日; 学术报告 PPT 文件请发至 czs@ioz.ac.cn, iszs001@aliyun.com, 截止时间为 2014 年 9 月 10 日。

(注: 中国动物学会秘书处收到电子稿后, 会回复发件人收件信息, 如若在一周内未接到回复, 请联系 010-64807051, 以免漏稿)。

三、注册费

2014年7月15日前注册	2014年7月16日-10月31日注册	11月1日-现场注册
会员 ¥900	会员 ¥1200	会员 ¥1500
非会员 ¥1200	非会员 ¥1500	非会员 ¥1800
学生 ¥600	学生 ¥900	学生 ¥1200

(注: 可带家属, 费用自理)

四、注册费付款方式 (请通过电汇或邮政汇款)

1. 银行汇款帐号: (请注明“会议注册费、开具发票单位名称及姓名”)

开户名称: 中国动物学会 银行帐号: 0200004509089152663

开户银行: 中国工商银行海淀西区支行

备注: 建议与会代表通过银行汇款方式交注册费

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汇款地址: 北京市朝阳区北辰西路 1 号

院 5 号中国动物学会 邮政编码: 100101

收 款 人: 张欢

3. 缴纳注册费联系人:

张欢 E-mail: iszs001@aliyun.com 联系电话: 010-64807051, 15801098533

张永文 E-mail: czs@ioz.ac.cn 联系电话: 010-64807051, 13681552901

注:

本届大会将按照国际惯例, 严格执行不同时期注册, 缴纳注册费不同的原则, 请各位代表及时注册付款, 享受早期注册的优惠。如果您不是中国动物学会会员, 可前往中国动物学会网站 (<http://www.czs.ioz.ac.cn>) 首

页 页面左侧“申请入会”处网上填写入会申请, 以享受会员待遇。

gdsdongwuxuehui@163.com 联系

电话: 020-84191955, 13631467700

注册完成后, 请您及时付款。请一定在 2014 年 7 月 15 日之前完成付款, 以享受早期注册优惠。如 7 月 15 号前注册, 但尚未付款, 则以实际缴费日期为注册日期缴纳费用。如注册付款后, 因意外原因不能参加会议的, 请发信和电话联系“缴纳注册费联系人”, 会议主办方将根据情况返还注册费。

具体返还说明:

在 2014 年 7 月 15 日前申请取消的, 将 100% 返还注册费, 仅收取汇款费用。

在 2014 年 10 月 31 日前申请取消的, 将返还 50% 注册费。

2014 年 11 月 1 日以后, 注册费将不再返还。

4. 会务组联系人:

胡慧建, 广东省动物学会秘书长;
E-mail: 13922339577@139.com 联系电话:
020-84191955, 13922339577

刘曦庆, 广东省动物学会秘书; E-mail:

请参加会议的代表、科技工作者及学生于 2014 年 7 月 15 日前给中国动物学会秘书处回执, 以便会务工作安排等。

五、大会不组织会后考察

若参加会后考察, 在旅行社自行报名, 费用自理。

旅行社提供路线如下:

A. 港澳线 (3 日, 2500 元 / 人, 按 30 人以上成团核算, 年底港澳展会较多, 价格可能略有浮动。请各位团友在原籍地办好港澳通行证。如遇“L”签证, 则加收 50 元 / 人过关名单费用)。

B. 粤北线 (丹霞文化之旅), 2 日, 价格 700 元 / 人, 按 30 人以上成团核算, 年底价格可能略有浮动。

C. 粤西线, 3 日, 价格 1100 元 / 人, 按 30 人以上独立成团核算, 年底价格可能略有浮动。

(中国动物学会秘书处)

第16届国际雁类学术研讨会暨IUCN/WI雁类专家组会议通知

会议时间: 2014 年 11 月 22 日—25 日

会议地点: 中国科学院生态环境研究中心, 中国北京

主办单位: 世界自然保护联盟物种生存委员会 (IUCN-SSC) 暨湿地国际 (Wetlands International) 雁类专家组

承办单位: 中国科学院生态环境研究中心

协办单位: 中国动物学会鸟类学分会

一、会议背景及简介

全球有 9 条水鸟迁徙路线, 由于人口和经济的快速增长, 东亚 - 澳大利西亚迁徙路线成为受威胁最严重的迁徙路线, 50% 的已知水鸟的种群数量出现下降。为了推动该迁徙路线上雁类的研究和保护工作, 经雁类专家组讨论, 确定第 16 届年会将于 2014 年 11 月 22—25 日在中国北京中国科学院生态环境研究中心召开。

世界自然保护联盟物种生存委员会 (IUCN-SSC) 暨湿地国际 (Wetlands International) 雁类专家组是这两个自然保护组织共同的下属机构。雁类专家组的主要职责是汇编现有的雁类研究成果及西古北区雁类种群的分布, 为雁类的科学管理和相关国家与地区的决策提供指导, 并加强雁类迁徙研究者之间的国际交流。

二、会议主要内容

本次学术研讨会将邀请美国、俄罗斯、丹麦、澳大利亚、日本、韩国、蒙古、中国及相关国家和地区的雁类专家与生态环境专家参加, 分享全球雁类研究的最新进展, 探讨东亚-澳大利西亚水鸟迁徙路线雁类研究和保护的现状与对策。在此基础上, 建立东亚雁类合作网络, 讨论优先研究、监测和保护的主题。

本次会议的主题将在 7 月 1 日摘要征集完毕后, 经学术委员会讨论决定。拟计划包含以下三个领域:

1. 全球变化和人类活动对雁类种群的影响以及研究和管理的结合;
2. 雁类生态学, 主要包括繁殖生物学、取食、迁徙、越冬生态和换羽等;
3. 雁的生理生态及其疾病、寄生虫和污染物的防控。

三、学术委员会

1. 主席: Bart Ebbsing (荷兰)
2. 成员:
Anthony Fox (丹麦), 曹垒 (中国), John Takekawa (美国), Matsuyuki Kurechi (日本), Ray Alisauskas (加拿大)

四、会议日程

- 11 月 22 日: 与会代表北京西郊宾馆报到
11 月 23 日上午: 大会开幕式及大会报告

11 月 23 日下午 -25 日上午: 大会学术交流

11 月 25 日下午: 与会专家返程

五、会议报到地点

北京西郊宾馆, 北京市海淀区王庄路 18 号, 电话: 010-62322288

六、会议费用

注册费

会议只接受网上注册, 网上注册截止日期: 2014 年 8 月 31 日。

会议注册网址: <http://gsgm2014.csp.science.cn/dct/page/70002>

2014年7月1日前注册	2014年7月2日-8月31日注册
参会人员:¥1800	参会人员:¥2000
学生:¥500	学生:¥600

(注: 可带家属, 费用自理)

七、注册费付款方式 (请通过电汇)

收款单位: 中国科学院生态环境研究中心

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账户: 0200006209088115082

请注明“国际雁类学术研讨会注册费”并写明汇款人姓名

八、会议论文摘要征集

摘要请用中英文撰写, 格式参照 Chinese birds (<http://www.chinesebirds.net/EN/column/column3.shtml>)。

摘要截止日期为 2014 年 7 月 1 日。

论文摘要需要网上会议注册后在线提交, 同时注明是展板还是口头报告, 最终由会议

学术委员会决定。

传 真: 010-62923549

九、 会务组联系人

联系人: 安桢, 18500050926, anan026@sina.cn

孟 凡 娟, 13120229448, gsgm2014@rcees.ac.cn

联系电话: 010-62915330

中国科学院生态环境研究中心

地址: 北京市海淀区双清路 18 号

邮编: 100085

第 16 届雁类专家组会议组委会

中国科学院生态环境研究中心



纯色山鹧鸪 (*Prinia inornata*) 为雀形目扇尾莺科 (Cisticolidae) 鹧鸪属鸟类。为体型略大(15 cm)而尾长的偏棕色鹧鸪。眉纹色浅, 上体暗灰褐, 下体淡皮黄色至偏红, 背色较浅且较褐山鹧鸪色单纯。台湾亚种 *flavirostris* 色较淡, 嘴黄色。虹膜浅褐, 嘴近黑, 脚粉红。

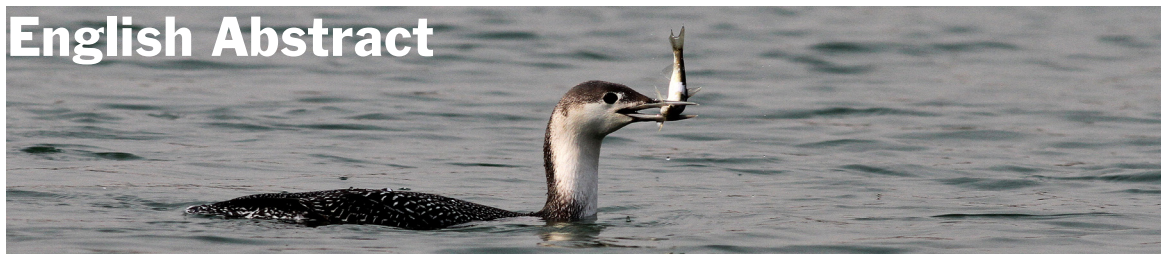
鸣声为单调而连续似昆虫的吟叫声, 长达 1 min, 每秒 3~4 声。叫声为快速重复的 *tle-tlee-tlee* 声。

分布于印度、中国、东南亚及爪哇。常见留鸟高可至海拔 1500 m; 亚种 *extensicauda* 分布于华中、西南、华南、东南及海南岛; *flavirostris* 分布于台湾。

栖高草丛、芦苇地、沼泽、玉米地及稻田。结小群活动, 常于树上、草茎间或在飞行时鸣叫。

封面照片为黄邦华于 2012 年 9 月 4 日摄于浙江东阳。

English Abstract



Pheasant Research

Comparison study on the flocking behavior of Reeves's Pheasant using infrared camera

From March 2013 to March 2014, we surveyed the flocking behavior of Reeves's Pheasant (*Syrnaticus reevesii*) using infrared camera in two sites, i.e. Pingjingguan Village, Hubei Province and Dongzhai National Nature Reserve, Henan Province. Based on the results of the radio tracking in the past years, we selected a 1 km × 1 km plot in each site, and then we placed 25 infrared cameras in each plot. The total working days of these cameras were 12,412 days. As a result, we obtained 24,374 clips of videos, including 1,361 clips of Reeves's Pheasant. Our results showed that the flocks with two individuals were the most common, responsible for 68.23% and 72.79% of the records in Pingjingguan and Dongzhai, respectively. A significant difference existed in the numbers of the individuals in the flocks of Reeves's Pheasant in Hubei Province ($\chi^2 = 322.776$, $df = 4$, $P < 0.001$), and similar pattern occurred in Dongzhai National Nature Reserve, Henan province ($\chi^2 = 252.750$, $df = 4$, $P < 0.001$). Three types of flocks occurred in the fields, including males-only, females-only, and mixed male-female. Single-sex flocks were the most common, and the mixed male-female flocks occurred for a smaller proportion. In Pingjingguan, the encounter rate of the flocks with female-only was higher in summer and autumn, whereas male-only flocks occurred more often in spring and autumn. In Dongzhai National Nature Reserve, the flocks with female-only appeared occasionally in summer and autumn, and those with male-only mainly appeared in spring. A significant difference of the types of flocks occurred between the two study sites. The daily rhythms of flocking intensity were opposite between Pingjingguan and Dongzhai National Nature Reserve. The flocking rate did not show significant seasonal variations. However, the flocks showed a significant preference of some habitats, such as shrubby areas and bamboo forests in Pingjingguan and broadleaf-conifer mixed forest and coniferous forests in Dongzhai National Nature Reserve.

(Wanlu Cao, Yuze Zhao and Jiliang Xu, Beijing Forestry University)

Analysis and prediction of the habitat of *Arborophila rufipectus*

The Sichuanhill-partridge (*Arborophila rufipectus*), which is endemic to China, has been listed as an endangered species in China and IUCN red books. Our researches indicated that the Sichuan hill-partridge distributes from south central Sichuan to north-east Yunnan, including south edge of

Daxiangling Mountains, east edge of Xiaoxiangling Mountains, northeast of Liangshan Mountains Chain, and west of Wumengshan Mountains. Relevant administrative areas involve 2 provinces, 5 cities/prefectures, and 19 counties /districts. The whole area is composed of 10 patches of occupied habitat and 36 patches of potential habitat, and the total area is about 5,869 km². Two patches so-called “Ganluo-Jinkouhe-Ebian-Mabian-Leibo” and “Leibo-Mabian-Pingshan” are the core areas of Sichuanhill-partridge habitat in Sichuan, while “Suijiang-Yongshan-Shuifu-Yanjin-Daguan” is the core area in Yunnan.

This paper has been published in the Journal of Sichuan Zoology in 2014.

(Bo Dai, Leshan Normal University; Benping Chen, Laojunshan National Natural Reserve, Sichuan;
Bisong Yue, Sichuan University)

Survey of Blyth's Tragopan and other pheasants in Myanmar

Blyth's Tragopan (*Tragopan blythii*) is the most endangered species in the genus *Tragopan*, and information about it is the least amongst the five species. From April to June 2014, a survey of Blyth's Tragopan and other pheasants was undertaken around Mount Kennedy (2,713 m asl) and Mount Saramati (3,840 m asl). Mount Kennedy is in the north of Chin State. In Kennedy area, seven sites were recorded to be Blyth's Tragopan habitat along the road. We visited two of them and undertook a survey. Kalij and Mrs. Hume's Pheasants were recorded by informants at most of villages we visited, but their numbers were reported to have declined quickly. Fire is the main problem for Blyth's Tragopan conservation. Because of fire, the landscape of the area is dominated by young secondary growth forest and shrub, which could not provide habitat for Blyth's Tragopan, and this bird just exists in patches of isolated old forest 2,100 m asl. Hunting and wood cutting are also problems for conservation of the bird, but not as harmful as fire. Mount Saramati is on the border between Myanmar and India, which reaches an altitude of 3,840 m at its peak. It is the highest point within Sagaing Division. In Saramati area, we recorded 6 species of pheasant, Blyth's Tragopan, Kalij, Red Junglefowl, Grey Peacock-pheasant, Chinese Painted Quail and Mountain Bamboo Partridge. The area we visited is used to be one of the most remote in Myanmar and could only be reached by several days' walk. These difficulties had limited the loss of forest, particularly at higher altitudes. This situation changed a few years ago. The widening of the road has introduced changes that are not yet drastic but should be carefully monitored. Other practices, such as shifting cultivation and hunting, have been in existing with the bird for a long history, but the fast increasing human population in this area will make the situation worse. The survey was supported by World Pheasant Association.

(Nan Wang, Beijing Forestry University)

Waterbird Research

The project of monitoring of shorebirds in key tidal area in the Yellow Sea ecoregion launched.

In 2014, WWF project “Monitor of shorebirds in key tidal area in the Yellow Sea ecoregion” has been launched. This project chose four sites, including the Shuangtaihe Nature Reserve, Liao Ning province; Nanpu coast wetland, Tangshan, Hebei province; Tianjin coast wetland and Rudong coast wet land, Nantong, Jiangsu province. Project was carried out by Beijing Normal University, with some experts from Shanghai Bird Watching Society and Shuangtaihe Nature Reserve participated in the field work. The donor of the project is Shenzhen Overseas Chinese Town (OCT).

From April to June 2014, the first spring filed work was carried out by four groups. Each group completed four surveys. The result showed that, totally 46 species and 300 thousands shorebirds were recorded at four sites, among which the Red Knot, Great Knot, Bar-tailed Godwit, Black-tailed Godwit, Grey Plover, Kentish Plover and Red-necked Stint were the dominant species. Twenty species had the number of stopover individuals exceeded 1% of the global population or migration route population, such as Red Knot (40% of migration route population), Eastern Curlew (20% of global population), Eurasian Oystercatcher (19% of migration route population), Great Knot (16% of global population), Lesser Sand Plover (12% of migration route population). Seventeen globally or regionally threaten species were recorded, including Spoon-billed Sandpiper (3.3% of global population) and Nordmann's Greenshank (2.2% of global population).

At these four sites, Nanpu wetland and Shuangtaihe wetland together supported 39 species and more than 250 thousands individuals during spring migration. Rudong wetland supported a lot of shorebirds (44 species), which is also the most important stopover site for critically endangered species: Spoon-billed Sandpiper. Due to intertidal mudflat reclaimed, Tianjin coast wetland has been severely damaged, the population of birds decreased significantly. Enhanced conservation and recovery of the wetland of this area is an urgent task. This project will last for three years; two surveys each year, in spring and autumn, respectively. The next survey will be carried out in autumn of 2014.

(Weipan Lei, Hongyan Yang and Zhengwang Zhang, Beijing Normal University)

A preliminary migration study of White-naped Cranes by satellite tracking

White-naped Cranes (*Grus vipio*), with a global population of 5,500–6,500 birds (Birdlife International 2014) and listed as Vulnerable on the IUCN Red List, breed mainly in Southern Siberia of Russia, Northeastern China and Eastern Mongolia. The eastern population of this species migrates across the northeastern China and the Korean Peninsula, and winters in Izumi of Kagoshima, Japan. The western population passes through Inner Mongolia, coastal Bohai Bay,

inland wetlands in eastern China, and almost all winter at Poyang Lake in Jiangxi Province in the middle reaches Yangtze River.

With both financial and technical support from the U.S. Forest Service, the International Crane Foundation and the Wildlife Science Conservation Center of Mongolia initiated a project in 2013: Understanding White-naped Cranes' Migratory Connectivity between Wintering and Breeding Grounds through Satellite Tracking, to determine migration routes and staging/stopover sites, document movements and habitats in breeding and wintering grounds, and prepare conservation recommendations. Six White-naped Cranes were captured and marked with transmitters and color bands in August 2013 in Mongolia, including 3 GPS PTTs (on 1 adult and 2 juveniles), and 3 cell phone transmitters (on 2 adults and 1 juvenile). In addition, another 35 White-naped Cranes were color banded. Under this project, Beijing Forestry University undertook the survey work at the migratory staging and stopover sites of the White-naped Cranes in China.

Signals from 3 GPS PTT marked cranes (identification numbers 130948, 130949, and 13050) and 1 cell phone transmitter marked crane (identification number 9530) were collected during migration. 130948 (juvenile), 130950 (juvenile), and 9530 (adult) arrived in China from Mongolia on 7, 7 and 13 October, and arrived at Poyang Lake on 10, 18 and 4 November, respectively. 130949 (adult) reached China on 13 October, and contact was lost after the last signal was received on 24 October in Yingshang County of Anhui Province, about 350 km from Poyang Lake.

The survey team visited staging and stopover sites during the migration period for White-naped Crane in autumn 2013. Three stopover sites were used frequently. At Duolun in Inner Mongolia, the cranes were seen feeding in fields on naked oats farmland, about 30 km south of Duolun Town; vast grassland in this area provided a good resting place for the birds. At this location, we recorded over 400 White-naped Cranes, including 6 color-banded individuals. We could not tell whether these birds had transmitters due to a bad weather and distance. According to local residents, approximately one thousand White-naped Cranes stop here for about a month in both spring and autumn each year. At Cangzhou (Hebei)/Beidagang (Tianjin) along Bohai Bay, White-naped Cranes stopped for a few days. At the Yellow River Delta National Nature Reserve, the reserve staff recorded 10 and 32 White-naped Cranes on 15 October and 2 November 2013, respectively, with one color-banded bird.

Threats to these migration staging and stopover sites need to be assessed and addressed. Duolun, a major migratory stopover site for White-naped Cranes, is currently not under protection, but facing great pressure from tourism development and livestock grazing. During this project, Bohai Bay was not used as much as in the early 1990s when compared to satellite tracking research of White-naped Cranes from 1991–1993 (Harris et al, 2000; Fujita et al, 2004), most likely due to rapid coastal development and human disturbance. About 1,200 White-naped Cranes were sighted resting at Miyun Reservoir near Beijing in autumn 2011. However, our team did not see large or medium sized flocks of White-naped Cranes, possibly due to overlap of migration and crop-harvesting in fall 2013.

(Shengwu Jiao, Jialin Lei, Yifei Jia and Guangchun Lei, Beijing Forestry University; Fengshan Li and Claire Mirande, International Crane Foundation; Nyamba Batbayar, Wildlife Science Conservation Center of Mongolia)

Bird Banding Research

444 species 107,394 birds were banded in 2013

In China, a total of 444 species 107,394 individuals were banded at 50 stations in 2013. Passeriformes account for the largest proportion: 251 species and over 96,000 birds. Others included 3,850 birds of 18 stork species, 3200 birds of 51 shorebird species, 1,700 birds of 34 raptor species, and 717 birds of 23 duck and geese species.

The top ten banded species were Common Redpoll (*Carduelis flammea*), Black-faced Bunting (*Emberiza spodocephala*), Red-flanked Bush Robin (*Tarsiger cyanurus*), Yellow-browed Warbler (*Phylloscopus inornatus*), Brambling (*Fringilla montifringilla*), Yellow-throated Bunting (*Emberiza elegans*), Brown Shrike (*Lanius cristatus*), Pallas's Rosefinch (*Carpodacus roseus*), Chinese Pond Heron (*Ardeola bacchus*).

There were 141 species 7,795 birds color marked, of which 64 species of 5,220 songbirds, 42 species of 2,231 shorebirds, 14 species of 211 ducks and geese, 7 species of 77 herons and storks, 6 species of 14 cranes and 4 species of 9 raptors. Among the color marked birds, there are 30 Oriental White Stork (*Ciconia boyciana*), 4 Red-crowned Crane (*Grus japonensis*), 3 Demoiselle Crane (*Anthropoides virgo*), 3 Common Crane (*Grus grus*), 1 Red-crowned Crane (*Grus nigricollis*) and 2 Great Bustard (*Otis tarda*).

(Yunqiu Hou and Lixia Chen, National Bird Banding Center of China)

Bird banding in Dongzhai National Nature Reserve, Henan

At Dongzai National Nature Reserve, a total of 77 species 6304 were banded in 2013. Among the banding birds, 666 birds of 30 species were recaptured. In addition, 7 birds of 5 species were return home, including Daurian Redstart (*Phoenicurus aureus*), Yellow-throated Bunting (*Emberiza elegans*), Black-faced Bunting (*Emberiza spodocephala*), Pallas's Leaf Warbler (*Phylloscopus proregulus*), and Yellow-browed Bunting (*Emberiza chrysophrys*).

A Lesser White throat (*Sylvia curruca*) was banded at the Huangtian protection station in November, which is the new record in Henan Province.

(Bo Xi, Zhiyong Du and Dejun Yuan, Bird Banding Station of Dongzhai National Nature Reserve, Henan)

Research Reports

Both historical and ecological processes determine the species richness pattern of babblers in the Hengduan Mountains

Understanding the elevational variation of species richness and its underlying mechanisms is a fundamental objective in ecology and biogeography. The Hengduan Mountains have special geological location (locate in the junction of Palearctic and Oriental zoological realms) thus have complex fauna components. Besides, the Hengduan Mountains have substantial elevational gradients (from 70–7,556 m), and significant vertical distribution of fauna and flora. All these features make the Hengduan Mountains an excellent region for research on biodiversity spatial distribution patterns and their underlying causes. As one of the world's most famous hotspots of biodiversity and endemism, the Hengduan Mountains harbor the richest bird fauna (about 925 species) in China and also is the distribution center of *Leiothrichinae* babblers which forming a special and important species group of China. Despite marcoecology and phylogeography made important progresses in explaining the biogeographic variation of biodiversity on the earth, there are few studies that synthesize species evolution history and present ecological process to explain the biogeographic variation of species richness.

By means of a dated phylogenetic tree and reconstructed ancestral states of Hengduan babblers, Ornithology Research Group, Institute of Zoology, CAS, estimated elevation-specific diversification rate, colonization age and colonization frequency, and explored the relationship between species richness and the underlying historical factors. The study applied a new method to estimate colonization age and colonization frequency, and modeled historical species richness patterns in the past 12 Myr, taking into account the temporal patterns of paleotemperature. The study also assessed area, geometric constraints, temperature, precipitation, seasonality and productivity as explanations for contemporary richness patterns of Hengduan babblers. The result demonstrated that: (1) the contemporary elevational pattern of species richness peak at about 1,000–2,500 m. The reconstructed paleo species distributions suggest that babblers, as a clade, first occupied the Hengduan Mountains at low to mid-elevations. Diversification rates varied little along the elevational gradient, and thus cannot be the main reason for species richness variation along this gradient, but historical colonization frequency and colonization age were highly correlated with species richness. (2) Seasonality and productivity had greater power than area and geometric constraints in explaining the present-day richness pattern of babblers along the elevational gradient. (3) The lowland forest babblers diverged earlier than treeline and alpine montane babblers. The lowland forest babblers represent an evolutionary 'old' group whereas the treeline and alpine montane babblers represent an evolutionary 'new' group. (4) Our results showed

that the speciation rate of Hengduan babblers peaked about 4–6 Myr ago. The fast diversification of Hengduan babblers at that time may provide new evidence for the geological movement of Hengduan Mountains. Compared with previous methods, the CRRL (Colonization based on Reconstructed Range Size and Location) method that the study developed considers the influence of historical species dispersal on the species richness pattern in nearby regions when assessing the influence of historical colonization frequency and colonization age. It is not only a better method for evaluating the influence of the historical colonization events on species richness, but also an important methodology for the study of historical species richness patterns. This research demonstrated that species evolutionary and contemporary ecological processes both played important roles in shaping the pattern of species richness.

The study supplies a new method for exploring the historical mechanisms of species richness pattern, and also would be very helpful for the research of the influence of climate change on the species richness pattern. The related research work is now published on line in *Global Ecology and Biogeography* (Wu et al. 2014 *Global Ecology and Biogeography*. doi: 10.1111/geb.12197). This work was supported by the National Natural Science Foundation of China (No.31330073, No. 31010103901, No. J1210002) and the US National Science Foundation (DBI 0851245).

(Yongjie Wu, Qu Yanhua and Lei Fumin, Beijing)

A new bird record in north China: Drongo Cuckoo (*Surniculus lugubris*)

A Drongo Cuckoo (*Surniculus lugubris*, Horsfield, 1821) was observed in the Tuoliang National Nature Reserve (38°37'08"N, 113°48'02" E, elevation 840 m), Pingshan County of Hebei Province on 12 May 2014. The bird was similar to Black Drongo (*Dicrurus macrocercus*) and perched on the telegraph pole at the foothills. With the aid of binoculars and DSLR camera, we saw it had a black body with blue metallic luster, straight and black beak, blue-gray claws, shallow forked tail, and white barred undertail covert. The head was darker than lower wings and tail. This is the first record of Drongo Cuckoo in north China.

Drongo Cuckoo is a typical oriental bird and mainly breeds in Sichuan, south-east Tibet, Yunnan, Guizhou, Guangdong, Guangxi, Fujian, Hongkong, and Hainan Province in China. It was once believed that the north Sichuan Province is its northern range limit. New distribution records of the Drongo Cuckoo have been reported in east central China such as Zhejiang, Jiangsu and Hubei province in recent years (Zheng, 2011; Birdtalker, 2010, 2012). These new records of Drongo Cuckoo occurring in east central China imply that the birds' distribution area has a trend of expanding northeastward in China. In the present study, the site of our record, Tuoliang Reserve is about 1,000 km north of the known northern limit of the bird's range.

(Yanfeng Sun, Dongming Li and Yuefeng Wu, Hebei Normal University)

Turnover of breeding birds on land-bridge islands

MacArthur and Wilson's theory of island biogeography proposes that the rate at which species colonize an island depends on the island's isolation (distance effect), whereas the local extinction rate depends on its area (area effect). Alternative hypotheses recognize that area can affect the colonization rate (target effect) and that isolation can affect the extinction rate (rescue effect) and, moreover, that these relationships may dominate. We quantify these relationships and associated turnover rates and incidence. We assessed the occupancy and behaviour of breeding birds on 37 islands from 2007 to 2012 in Thousand Island Lake, China. We estimated the effects of area, isolation and other biogeographical parameters on the frequencies of colonization and extinction events using multivariate logistic regression. We then extended these results to derived properties such as species turnover rates and incidence.

We found extinction rates decreased and colonization rates increased on larger islands. Isolation had no significant effect on colonization or extinction rates. Islands had high species turnover overall, and turnover rates followed the same pattern as extinction rates with different areas and isolations. Pool turnover, which controls for the number of species in the pool, was higher on large islands. Species richness also increased with area. Our study of bird communities supported area and target effects, but not distance and rescue effects. Our results showed island area was a better predictor of colonization and extinction than isolation, probably because of the relatively small scale (c. 580 km²) and homogeneous vegetation structure of our research system, and the strong dispersal ability of birds. We conclude that the differences between our observations and theoretical predictions, or results from other studies that measured colonization and extinction directly, are consistent with the particular biogeography of these islands.

See details for our research in Xingfeng Si et al. (2014) Turnover of breeding bird communities on islands of an inundated lake. *Journal of Biogeography*, in press.

(Xingfeng Si and Ping Ding, Zhejiang University)

Egg color variation, but not egg rejection behavior, changes in a cuckoo host breeding in the absence of brood parasitism

Changes in host egg coloration via the evolution of interclutch variation in egg color or intraclutch consistency in egg color are hypothesized counter adaptations that facilitate egg recognition and thus limit brood parasitism. Whether these antiparasitism strategies are maintained when the selective pressure of parasitism is relaxed remains debated. We investigated egg rejection behavior and egg color polymorphism in the redbilled leiothrix (*Leiothrix lutea*), a Common Cuckoo (*Cuculus canorus*) host, in a population introduced to Hawaii 100 years ago (breeding without cuckoos) and a native population in China (breeding with cuckoos). We found that egg rejection ability was equally strong in both the native and the introduced populations, but levels of interclutch variation and intraclutch consistency in egg color in the native population were higher

than in the introduced population. This study (published in *Ecology and Evolution*, 2014) provides rare evidence that host antiparasitism strategies can change under parasite-relaxed conditions.

(Canchao Yang, Wei Liang, Hainan; Yang Liu, Guangzhou; Lijin Zeng, USA)

Nest defenses and egg recognition of yellow-bellied prinia against cuckoo parasitism

Parasites may, in multi-parasite systems, block the defenses of their hosts and thus thwart host recognition of parasites by frequency-dependent selection. We conducted comparative studies of the defensive strategies of a host of the Oriental Cuckoo (*Cuculus optatus*), the Yellow-bellied Prinia (*Prinia flaviventris*), in mainland China with multiple species of cuckoos and in Taiwan with a single cuckoo species. Cuckoo hosts did not exhibit aggression toward cuckoos in the presence of multiple cuckoo species but showed strong aggressive defenses of hosts directed toward cuckoos in Taiwan. In addition, the cuckoo host in populations with a single cuckoo species was able to distinguish adults of its brood parasite, the Oriental cuckoo, from adult Common Cuckoos (*Cuculus canorus*). This represents the first case in which a cuckoo host has been shown to specifically distinguish Oriental cuckoo, from other *Cuculus* species. This study (published in *Naturwissenschaften*, doi 10.1007/s00114-014-1209-8) significantly improves our knowledge of intraspecific variation in antiparasitism behavior of hosts between single- and multicuckoo systems.

(Canchao Yang, Longwu Wang and Wei Liang, Hainan; Shun-Jen Cheng and Yu-Cheng Hsu, Taiwan; A. P. Møller, France)

Shifting to an energy-poor diet for nitrogen? Not the case for wintering herbivorous Lesser White-fronted Geese in China

Geese often forage on mid-winter foods that fail to satisfy daily energy needs, but they may do so to acquire other nutrients, such as nitrogen. We tested this hypothesis by evaluating nitrogen budgets, namely the balance of nitrogen income against expenditure, of wintering Lesser White-fronted Geese (*Anser erythropus*) feeding at two sites within East Dongting Lake, China, where they could and could not balance daily energy budgets. Geese could balance nitrogen budgets in energy-rich habitats but were less able to do so in habitats where they failed to balance energy budgets. This study presents the first full nitrogen budget for a wintering goose species, and suggests that, rather than acting as a source of nitrogen, use of energy-poor but undisturbed habitats may represent a refuge from human disturbance at other habitats.

(Xin Wang, Anthony D. Fox, Xuliang Zhuang, Lei Cao, Fanjuan Meng and Peihao Cong)

Abundance and distribution of wintering Scaly-sided Mergansers (*Mergus squamatus*) in China: where are the missing birds?

The Endangered Scaly-sided Merganser (*Mergus squamatus*) is amongst the most threatened of sea ducks (Mergini), with an estimated population of c.4,600 individuals based on a recent population estimate on the breeding areas in Primorye, Far East Russia, China and DPR Korea. For the first time, we present published and unpublished data on the wintering distribution in China and smaller numbers in Korea. We report 156 sightings during 2000–2011, together with 11 records of wintering sites using geolocation devices, from 16 provinces in China, with greatest concentrations in Jiangxi Province (97 reports from 18 sites). Both sources of data suggest some degree of winter site fidelity to fast-flowing clear water rivers 50–350 m wide, with riffles, islands or sand banks in hilly/mountainous areas with low levels of human disturbance. Surveys located a maximum of 370–770 birds, 8–17% of the estimated total population, confirming our poor knowledge of the species' wintering distribution. There is an urgent need to define the wintering range of this species which is widely dispersed and nowhere abundant, but is threatened everywhere by dam construction, sand and gravel extraction, industrial and domestic pollution and fishing that threaten the integrity of the winter habitat. This also raises important conservation questions about how to protect such a species that is not highly concentrated and may require catchment scale nature conservation actions to effectively safeguard its current distribution.

(Mark Barter, Xuliang Zhuang, Xin Wang, Lei Cao, Jinyu Lei, Diana Solovyeva and Anthony D. Fox)

Past hybridization between two East Asian long-tailed tits (*Aegithalos bonvaloti* and *A. fuliginosus*)

Previous studies revealed that the mitochondrial DNA (mtDNA) differentiation between two East Asian long-tailed tits (*Aegithalos bonvaloti* and *A. fuliginosus*) was extremely low, even lower than intraspecific differentiation in some other long-tailed tits. Incomplete lineage sorting and hybridization are considered to be two of the major causes of low interspecific divergence. However, distinguishing between these two processes is notoriously difficult as they can generate similar genetic signatures. CAS-IOZ Ornithology Group utilized the recently developed isolation-with-migration (IM) coalescent model, combined with multilocus analyses and ecological niche modelling to explore the cause of the extremely low mtDNA divergence. These analyses results suggest that historical hybridization, in combination with selective sweep and/or genetic drift might be the main causes. The hybridization probably occurred mainly between *A. fuliginosus* females and *A. bonvaloti* males. The distributions for both species were extended to the low elevational Sichuan Basin during the Last Glacial Maximum (LGM), resulting in potentially larger contact area between the two species. After the LGM, both species moved to high elevational areas, thus contracting the contact area. The LGM distribution expansion might have facilitated hybridization, while the post-LGM distribution contraction could have facilitated some mtDNA

sorting. Although the historical interspecific gene flow was obvious, the ongoing gene flow is limited. It suggests that ongoing hybridization between the two species might be very limited (Wang et al. 2014 *Frontiers in Zoology*, doi 10.1186/1742-9994-11-40).

(Wenjuan Wang and Yanhua Qu, Beijing)

Effects of the Taklimakan Desert highway on endemic birds *Podoces biddulphi*

The Taklimakan Desert Highway with its shelter forest lasted for 466 km's long and 72–78 m's wide cross the desert of the Tarim Basin in Xinjiang, Northwestern China. Xinjiang Ground Jay (*Podoces biddulphi*) is a bird species endemic to China and it has a restricted range, living only in the Taklimakan Desert. We assess the abundance of Xinjiang Ground Jay near the Taklimakan Desert Highway, and also we used alert distance and flight initiation distance to evaluate the effects of the Taklimakan Desert Highway on Xinjiang Ground Jay responses to human encroachment. The results showed that Xinjiang Ground Jay were more abundant adjacent to the roadway than further way, and the alert distance and flight initiation distance of the Xinjiang Ground Jay decreased significantly with increasing road effect. These results indicated that the Taklimakan Desert highway and its shelter forest attracted more Xinjiang Ground Jay to live near the road, and also the highway significantly affected the bird's vigilance behavior.

(Feng Xu and Ming Ma, Xinjiang)

News and Notes — China

Guangdong ornithologists participated in the Big Bird Race 2014, Hong Kong

The 30th anniversary edition of WWF-Hong Kong's longest-running flagship event – the Big Bird Race – was held on 25 January, 2014. This year the race was enhanced by the presence of bird-watchers from overseas, with teams from South Korea, Taiwan, Macau and Guangdong taking part in the race. The Guangdong team (Chinese) was composed of two ornithologists, a student and an enthusiastic birdwatcher from Guangzhou and Shenzhen, including Zhang Qiang and Zhang Min (from South China Institute of Endangered Animals), Huang Kaichi (from Sun Yat-sen University) and Jonathan Martinez (Team leader, from Shenzhen, French). A total of 13 teams attended.

Teams of bird-watchers “raced” to find the largest number of bird species within the allotted 12-hour period and competed for various prizes. Bird-watchers could start from anywhere within the HKSAR. The most visited sites including Maipo Nature Reserve, Taipokau Nature Reserve and Long Valley Wetland. The local team “Sparrows” won the “Most Birds Seen” award, recording an impressive 160 bird species by the end of the race. Though we didn't win the first prize, our team Chinensis recorded 137 bird species by effort, including Ferruginous Duck (*Aythya nyroca*) and all

five Bush Warblers within Hong Kong, and achieved the fourth rank.

We had been most hospitably received and punctually served through this race, and mingled with other participants very well. The effort and experience of how they keep such natural habitats in this metropolis were worth learning.

(Fasheng Zou, Guangzhou)

News and Notes — Abroad

The World Pheasant Association - The ultimate authority on Galliformes

WPA is a registered charity (271203) founded in 1975 which aims to develop and promote the conservation of all the species within the order of the Galliformes, otherwise known as the gamebirds of the world. Apart from pheasants, this also includes partridges, grouse, quail, francolins, megapodes and cracids, some of which are the most beautiful, yet threatened, birds in the world. The President is Professor Guangmei Zheng from China, the Chairman is Mr. Keith Chalmers-Watson. Recently, the vice-President of WPA Mr. John Corder visited Beijing and met Professor Zhengwang Zhang, Vice President of COS. WPA will celebrate its 40th Anniversary in England in 2015, and will organize the international symposium on Galliformes in 2016, possibly in China.

(Zhengwang Zhang, Beijing Normal University)

The title of *Chinese Birds* changed into *Avian Research*

The application of changing the title of *Chinese Birds*, the official journal of China Ornithological Society, into *Avian Research*, got approved by the State News and Press Administration in April 2014.

The decision of changing the title of *Chinese Birds* was made in the editorial board members meeting held in Hangzhou in November 2013. Given some long-standing problems such as the shortage of high-quality submissions and low citations of papers, the board members proposed that a new journal title would be one of the countermeasures for making the journal more international, attracting more manuscripts worldwide and improving impact factor of the journal.

The new journal *Avian Research* (CN 10-1240/Q, ISSN 2055-6187) has constructed the editorial board, and is open for submissions at www.avianres.com. The journal will be co-published by BioMed Central in an Open Access mode. All article processing charges will be waived to authors. Readers across the world will have a free access to contents of the journal at no cost.

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(Pengjun Cheng, Editorial Office of *Avian Research*)

Publications

The Publication of *A Photographic Guide of Birds of China*

The book *A Photographic Guide of Birds of China* was published by Fujian Strait Publishing Press in July 2014. Mr. Liming Qu, a member of COS is the editor-in-chief of the book. It is an easy-to-use identification guide to the 1414 species represented by 1800 photos, which account for more than 98% species of Chinese avian fauna. For each species, the book describes identifying features, distribution, habits and habitats, and conservation status.

(Yang Liu, Sun Yat-sen University, Guangzhou)

Announcement

10th kingfisher forum, hosted by China Ornithological Society, will be held on 14–16 Aug, 2014 at Beijing Normal University

17th Chinese Zoology Congress, hosted by Chin Zoological Society, will be held on 17–20 Nov, 2014 in Guangzhou.

16th international Anseres Symposium & IUCN/WI Anseres Specialist Group meeting will be held on 22–25 Nov, 2014 at Research Center for Eco-Environmental Sciences, Chinese Academy of Sciences.

Front Cover

The Plain Prinia (*Prinia inornata*) is a small warbler in the Cisticolidae family. It is a resident breeder from Pakistan and India to south China and southeast Asia.

This skulking passerine bird is typically found in wet lowland grassland, open woodland, scrub and sometimes gardens. The Plain Prinia builds its nest in a shrub or tall grass and lays 3–6 eggs. These 13–14 cm long warblers have short rounded wings, a longish tail, strong legs and a short black bill. In breeding plumage, adults are grey-brown above, with a short white supercilium and rufous fringes on the closed wings. Underparts are whitish-buff. The sexes are identical. In winter, the upperparts are a warmer brown, and the underparts more buff. The tail is longer than in summer. There are a number of races differing in plumage shade. The endemic race in Sri Lanka retains summer plumage, including the shorter tail, all year round.

Like most warblers, the Plain Prinia is insectivorous. The song is a repetitive *tle-tlee-tlee*.

Photographed by Banghua Huang in Dongyang, Zhejiang Province on 4 September, 2012.

赭红尾鹂 (*Phoenicurus ochruros*)
摄影 雷春和



黑枕黄鹂 (*Oriolus chinensis*)
摄影 孙梦晓



凤头䴙䴘 (*Podiceps cristatus*)

摄影 江顺富

