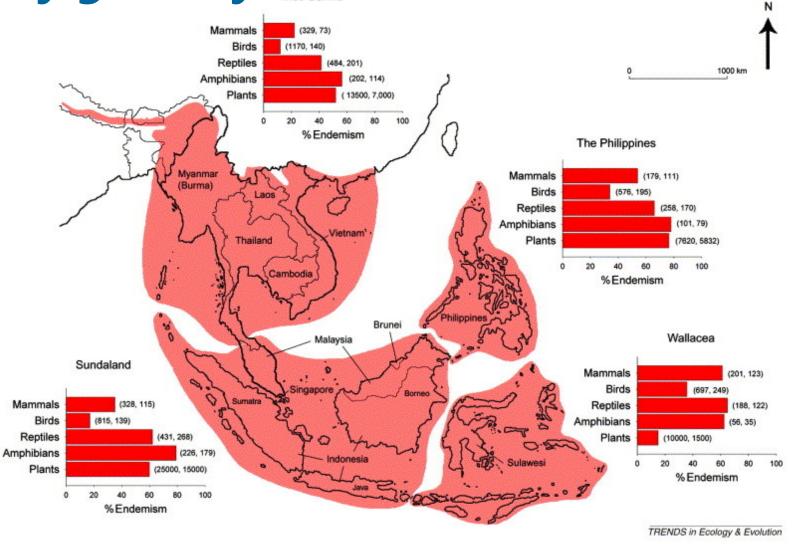


#### **Outline**

- Background on the bird hunting situation analyses in Southeast Asia
- Updates on key findings
- Updates on new publications
- Next steps for the situation analysis
  - Review of draft report
  - External review
  - Publication
- Next steps for conservation action



Southeast Asia – a region important for biodiversity globally



#### Hunting a key threat to wildlife in SE Asia

- Hunting the greatest immediate threat to Southeast Asia's biodiversity, especially vertebrates
- There is also widespread targeted hunting of high-value species
- Wildlife hunting in SEA cannot be considered sustainable
- Focus on cross-border trade is insufficient to address overexploitation of wildlife because hunting of wildlife is significant at national and local scale



Wild meat in Indonesian markets (Source: The Straits Times)



#### Scale of bird hunting in Southeast Asia

- Large numbers of waterbirds taken across the region for food (and domestic trade for wild meat)
- Also large scale trapping of passerines in many parts of region (China and Southeast Asia)
- Little systematic survey of bird hunting and trade (at local level) for food and other uses





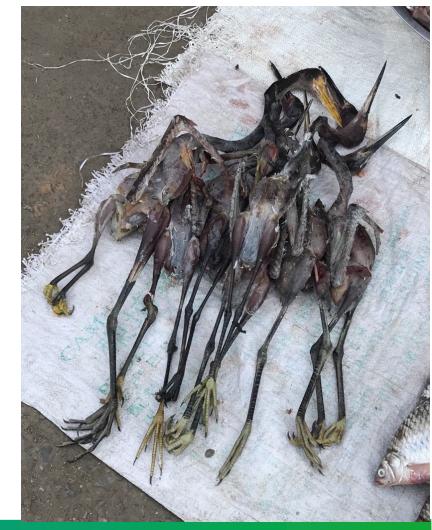
## Reasons why people consume or trade wildlife in Southeast Asia

- Perceived health/medicinal value of wild meat
- Local poverty, limited livelihood opportunities
- Improved access to forests, wetlands and markets
- Improved (or cheaper) **hunting tools** (e.g. nets, snares)
- Increasingly local and regional demand for wild meat, medicinal products, and wild animals as pets
- Hunters often take common species for their own consumption, but also take rarer species opportunistically and sell surplus meat and commercially valuable parts.



# We need to better understand bird hunting in Southeast Asia

- Understand the magnitude/extent of hunting and the underlying motivations
- Understand the legal dimensions and content of bird hunting
- Assess the relative impact of hunting pressure on species
- **Establishing critical baselines** for measuring impact of future conservation action.
- Form an evidence base to allow for identification of priorities and strategies to guide policy development and support government action



# Objectives of situation analysis on bird hunting

- To develop an assessment and synthesis of wildlife protection and protected area legislation in each Southeast Asian country
- To identify the scale of (lethal) hunting of birds and develop a quantitative assessment of species being hunted.
- To develop road-map(s) for subsequent efforts and action plans at the national level to tackle illegal hunting and trade
  - Strengthen monitoring
  - Contribute to the work of the CMS-EAAFP Task Force on the Illegal hunting, taking and trade of migratory birds



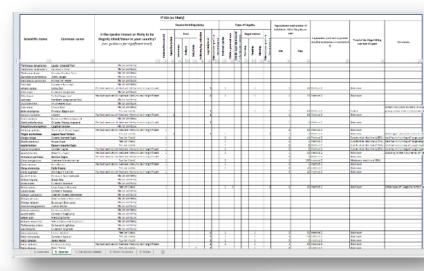
# Activities under the situation analysis

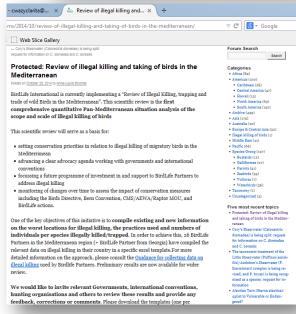
- Reviewing national legislation on wildlife protection, hunting and natural resource (NTFP) use
- Identifying current hotspots of bird hunting/sale across the country
- Field surveys of currently known hotspots of bird hunting and bird markets for wild meat
- Consultation and interviews with stakeholders (local people, site managers)
- Compiling of information from diverse data sources on bird hunting
- Provide recommendations to support government action & build road-map for future conservation intervention including advocacy, CEPA, community engagement and enforcement



#### Compiling data on bird hunting

- Data collected species by species
  - Minimum and maximum estimate of no. of individuals killed or taken/year
  - Reason(s) for killing/taking
  - **Type(s) of illegality involved** (protected species under national legislation, within a protected area, illegal method, etc.)
- Information on worst locations or hotspots
- Datasets available online for peer-review by external experts, feedback used for revision by national data compilers





# Hunting and trapping of wild birds widespread across Southeast Asia



## Hunting of birds widespread across mainland Southeast Asia

- Widespread evidence of hunting across Indo-Burma region
- More than 500 species hunted in Bangladesh, Cambodia, Myanmar, Malaysia, Vietnam, Lao PDR, Thailand
- Evidence from news reports, youtube videos on hunting, and direct survey observations
- Hunting widespread in agricultural areas where little enforcement for wildlife (e.g. paddy fields)



#### **Estimated hunting take for shorebirds**

| Species                | Latin                    | Lower | Upper |
|------------------------|--------------------------|-------|-------|
| Whimbrel               | Numenius phaeopus        | 2700  | 27000 |
| Eurasian Curlew        | N. arquata               | 900   | 9000  |
| Far Eastern Curlew     | N. madagascariensis      | 5     | 10    |
| Bar-tailed Godwit      | Limosa lapponica         | 900   | 9000  |
| Black-tailed Godwit    | L. limosa                | 900   | 9000  |
| <b>Great Knot</b>      | C. tenuirostris          | 900   | 9000  |
| Red Knot               | C. canutus               | 5     | 50    |
| Broad-billed Sandpiper | C. falcinellus           | 900   | 9000  |
| Sharp-tailed Sandpiper | C. acuminata             | 5     | 20    |
| Curlew Sandpiper       | C. ferruginea            | 900   | 13500 |
| Long-toed Stint        | C. subminuta             | 1350  | 11250 |
| Spoon-billed Sandpiper | C. pygmaea               | 1     | 5     |
| Red-necked Stint       | C. ruficollis            | 2700  | 27000 |
| Sanderling             | C. alba                  | 4500  | 36000 |
| Dunlin                 | C. alpina                | 10    | 100   |
| Asian Dowitcher        | Limnodromus semipalmatus | 100   | 1350  |
| Terek Sandpiper        | Xenus cinereus           | 1800  | 9000  |
| Common Sandpiper       | Actitis hypoleucos       | 3600  | 27000 |
| Green Sandpiper        | Tringa ochropus          | 5     | 50    |
| Grey-tailed Tattler    | T. brevipes              | 5     | 50    |
| Spotted Redshank       | T. erythropus            | 900   | 8100  |
| Common Greenshank      | T. nebularia             | 9000  | 45000 |
| Common Redshank        | T. totanus               | 3600  | 22500 |
| Wood Sandpiper         | T. glareola              | 6750  | 27000 |
| Marsh Sandpiper        | T. stagnatilis           | 4500  | 18000 |
| Nordmann's Greenshank  | T. guttifer              | 1     | 10    |



Estimates by Nguyen Hoai Bao, Nguyen Quang Hao, Yong Ding Li & Le Trong Trai

### Key groups of species hunted



**Shorebirds** in intertidal flats and fishponds



Rails and crakes in paddy fields



**Herons and bitterns** in paddy fields

**Passerines** in paddy fields, marshes and forests

## **Evidence of large-scale trade of waterbirds for food**



Widespread and open trading of wild birds in food markets in Vietnam (left) and Myanmar (right)



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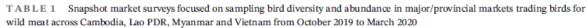
DOI: 10.1111/csp2.12668

#### PERSPECTIVE



## The specter of empty countrysides and wet of hunting take on birds in Indo-Burma

Ding Li Yong<sup>1</sup> | Anuj Jain<sup>1</sup> | Sayam U. Chowdhury<sup>2</sup> | Emily Denstedt<sup>3</sup> | Kongsy Khammavong<sup>3</sup> | Phonesavanh Thiri Dae We Aung<sup>4</sup> | Ei Thinzar Aung<sup>4</sup> | Ayuwat Jearwatt Wich'yanan Limparungpatthanakij<sup>5</sup> | Rongrong Angkaew<sup>6</sup> | Khwankhao Sinhaseni<sup>5</sup> | Trong Trai Le<sup>7</sup> | Hoai Bao Nguyel Punleu Tang<sup>9</sup> | Porchhay Taing<sup>9</sup> | Victoria R. Jones<sup>10</sup> | F



| District<br>(market)   | Total abundance<br>(individuals) | Identified<br>species | Forest species | Wetland/paddy<br>associated species | Sampling effort        |
|------------------------|----------------------------------|-----------------------|----------------|-------------------------------------|------------------------|
| Cambodia               |                                  |                       |                |                                     |                        |
| Kampong Cham           |                                  |                       |                |                                     |                        |
| Bantheay               | 120                              | 8                     | 0              | 7                                   | 1 day (October 2019)   |
| Prey Veng              |                                  |                       |                |                                     |                        |
| Prey Veng <sup>a</sup> | c. 300                           | 12                    | 0              | 10                                  | 3 days (October 2019)  |
| Lao PDR                |                                  |                       |                |                                     |                        |
| Bolikhamxay            |                                  |                       |                |                                     |                        |
| Paksan                 | 60                               | 5                     | 2              | 3                                   | 2 days (November 2019) |
| Khamkert <sup>b</sup>  | 135                              | 22                    | 16             | 1                                   | 3 days (November 2019) |
| (Lak Sao)              |                                  |                       |                |                                     |                        |
| Khammouane             |                                  |                       |                |                                     |                        |
| Hinboun                | 42                               | 12                    | 9              | 1                                   | 1 day (January 2020)   |
| Xiangkhouang           |                                  |                       |                |                                     |                        |
| Paek <sup>b,c</sup>    | c. 10,500                        | 20                    | 16             | 3                                   | 3 Days (November       |
|                        |                                  |                       |                |                                     | 2019)                  |
| Salavan                |                                  |                       |                |                                     |                        |
| Salavan                | 42                               | 16                    | 14             | 1                                   | 1 day (March 2020)     |
| Champasak              |                                  |                       |                |                                     |                        |
| Khong                  | 16                               | 7                     | 2              | 0                                   | 1 day (March 2020)     |
| Myanmar                |                                  |                       |                |                                     |                        |
| Mandalay Region        |                                  |                       |                |                                     |                        |
| Mandalaya              | 143                              | 6                     | 0              | 5 <sup>d</sup>                      | 2 days (October 2019)  |
| Sagaing Region         |                                  |                       |                |                                     |                        |
| Monywa                 | 122                              | 5                     | 0              | 5 <sup>d</sup>                      | 3 days (October 2019)  |
| Rakhine State          |                                  |                       |                |                                     |                        |
| Sittwe                 | 4                                | 4                     | 0              | 4                                   | 1 day (December 2019)  |
| Viet Nam               |                                  |                       |                |                                     |                        |
| Hanoi                  |                                  |                       |                |                                     |                        |
| Mo Cho                 | 188                              | 3                     | 0              | $1^d$                               | 1 day (October 2019)   |
| Lang Hoa Lac           | 560                              | 13                    | 0              | 13                                  | 2 days (October 2019)  |

ligh counts of unidentified passerines, small bitterns, shorebirds (i.e. snipes), and quails (mostly de-feathered and difficult to identify).



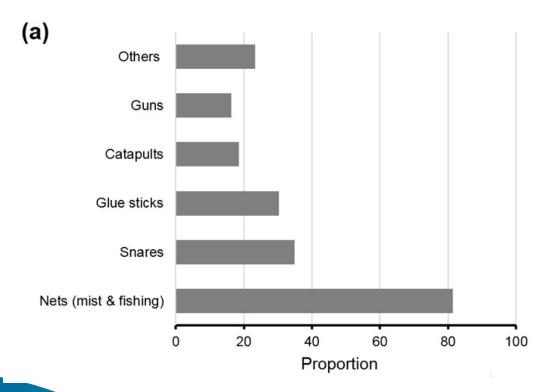
Markets known for wild meat being traded based on past surveys.

<sup>&</sup>lt;sup>c</sup>Includes common snipe Gallinago gallinago, but potentially also other Gallinago species

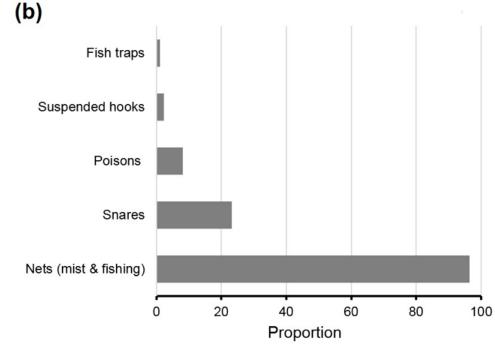
<sup>&</sup>lt;sup>d</sup>Counts contain high abundance of Barn Swallow *Hirundo rustica* (many de-feathered and difficult to identify) but also expected to contain other swallow species.

### Type of hunting tools used

Coastal villages in Koh Kong Province (Cambodia)



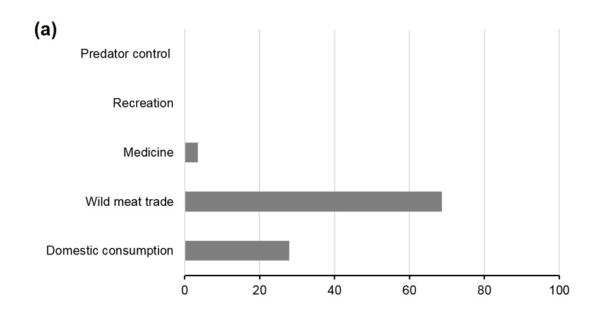
Inland villages in Bolikhamsay and Xiengkhouang (Laos)



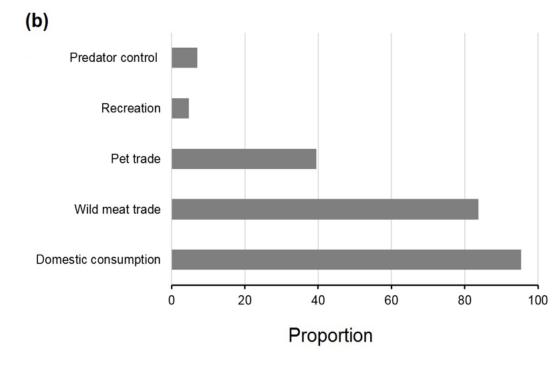


# Drivers of bird hunting in two Indo-Burma landscapes

Coastal villages in Koh Kong Province (Cambodia)



Inland villages in Bolikhamsay and Xiengkhouang (Laos)





Mist-nets are easily available and widely used for hunting

Mist-nets are readily available in shops selling farming products in many parts of Southeast Asia



Lesser Sand Plover

Mist-nets are rampantly planted along wetlands, especially fishponds and mudflats to catch birds, or destroy birds (perceived to be raiding fish farms)



# Feedback of bird hunting survey findings to governments

- Myanmar
- Thailand
- Cambodia
- Vietnam
- Malaysia
- Lao PDR





#### In summary....

- More than 500 species affected by hunting and trapping in Southeast Asia
- Bird hunting for the wild meat trade (and domestic consumption) a major threat to species in SE Asia, especially in mainland Southeast Asia/Indo-Burma
- Little monitoring in agricultural landscapes used by many waterbird species
- Regulation of hunting tools, especially nets, important in protecting waterbird populations
- Stronger government action needed in most Southeast Asian countries, in complement with local engagement



# Next steps for the situation analysis

- Draft outline of situation analysis project report with a focus on mainland Southeast Asian countries (completed, Dec 2021)
- Finalising field work and data compilation for insular SE Asia countries
- Publication of mainland Southeast Asia/Indo-Burma situation analysis (planned early 2023)
- Side event at EAAFP MOP11 (Mar 2023)
- Government consultations (ongoing)



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#### **Situation analysis**



#### 1.3. Bird hunting and traditions

In some parts of Southeast Asia, the trapping of migratory birds with traditional methods and tools has been long associated with local and indigenous hunting traditions. having persisted for decades across rural communities from Indonesia (Milton & Mahandi 1989, McCarthy & Noor 1996) to Indochina (Evans et al. 2000) and Myanmar (Thet Zaw Naing et al. 2017). While such hunting may not necessarily violate local regulations or national laws, species lacking legal protection are often exploited at scales that may be unsust an able in the long-term. Some of the best examples of this is the practice of trapping of large numbers of migratory birds by local people.

taking place in Distor's Pacc Nusva Dela province. Philippines (Doga-Ong 2010) and most certainly at several more sites In Xiemphhoueng in Lao PDR local people continue to use variety of locally devised traps to hunt large numbers of the Earn local delicacy (Evens et al. 2000, see Raire be associated with the culture of minority ethnic groups even though migratory species may not necessary be specifically targeted. These hunting traditions presents complex challenges for the implementation of conservation activities.

#### 1.4. Need for a situation analysis on

bird hunting in Southeast Asia

There is an increasing awareness of the impact of hunting on migratory bird populations through situation assessments in Europe, the Middle East and parts of Africa (Brochet et al. 2014), and increasingly in Asia (Galo-Gajjao et al. 2020). At the global level, several migratory species have shown drastic population decline because of unsustainable hunting pressure (Pierce-Higgins et al. 2017) many already under pressure from habitat loss and climate change. Recent evidence highlighting the declines of Asian migratory species such as the Yellow-breasted Bunting (Kamp et al. 2015), Rustic Bunting E. rustica

(Edenius et al. 2017), and several shorebird shorebirds (Gallo-Calino et al. 2020). Inked to trapping pressure across the East Asian-Australasian Flyway, continues to provide an indication that the situation in Asia may be is also increasing information from regional trapping at a very large scale across many parts of Asia. There is therefore a clear and urgent need for recent documentation, and a broad-scale assessment of the situation in



Large numbers of swallows, especially the Barn Swallow Hirundo rustica, among other species, are harvested in northern Lac PDR in Xiengkhou ang Province, where they are sought after as food by local people (Evans et al. 2000). Barn Swallows are also known to be trapped in large numbers in Vietnam and Cambodia for religious release and food, and at least until the 1980s in Thailand, most famously at Bueng Borapet.



Forman liegal Hunting, Taking and Trade off Migatory Birds in the East Asian-Australianian Power of the EALIST WORTON Harries. Chies participated by representatives from

he government of Australia, Bangladesh,

Cantoda, Morgolia and the Russian Federal

#### **Country sections outline**

- Overview of biodiversity laws
- Summary of species hunted
- Reasons and motivations for bird hunting
- Hunting practices
- Sites for further monitoring
- Conservation recommendations

**Table 2**. Estimates of take of the most heavily hunted bird species in Bangladesh.

|   | Species                   | Scientific name       | Lower estimate | Upper estimate | Main use(s)      |
|---|---------------------------|-----------------------|----------------|----------------|------------------|
|   | Western Spotted           | Spilopelia suratensis | 2,300          | 2,900          | Food, pet bird   |
| ~ | Dove                      |                       |                |                | trade            |
| 9 | Indian Pond-heron*        | Ardeola grayii        | 700            | 1,200          | Recreation, food |
|   | Northern Pintail          | Anas acuta            | 400            | 1,100          | Recreation, food |
|   | Lesser Sand Plover        | Charadrius mongolus   | 500            | 1,000          | Food             |
|   | Lesser Whistling          | Dendrocygna javanica  | 400            | 850            | Recreation, food |
|   | Duck                      |                       |                |                |                  |
|   | Purple Swamphen           | Porphyrio indicus     | 350            | 800            | Recreation, food |
|   | Kentish Plover            | C. alexandrimus       | 150            | 700            | Food             |
|   | Greater Sand Plover       | C. leschenaulti       | 150            | 700            | Food             |
|   | Common Coot               | Fulica atra           | 250            | 550            | Recreation, food |
|   | Bar-headed Goose          | Anser indicus         | 150            | 500            | Recreation, food |
|   | Ruddy Shelduck            | Tadorna ferruginea    | 200            | 500            | Recreation, food |
|   | *Difficult to distinguish | ge                    |                |                |                  |



### Questions

