

Supplementary Table 1. Host and geographic information and data output for each pool of invertebrate samples

| Library | Short Name | Host Classification | Host species (No. of individual) | Sample type | Locations (Habitat) | Data generated (bp) | Library accession |
|---|------------|-------------------------|--|------------------|-------------------------|---------------------|-------------------|
| Cockroaches ^a | ZL | Arthropoda: Insecta | <i>Blattella germanica</i> (22) | Whole individual | Hubei (Terrestrial) | 6,182,028,000 | SRX833674 |
| Coleoptera mix Hubei | QCM | Arthropoda: Insecta | <i>Coleoptera</i> sp. (24), <i>Holotrichia</i> sp. (3), <i>Harmonia axyridis</i> (2), <i>Apriona germari</i> (2), <i>Harpalus</i> sp (1). | Whole individual | Hubei (Terrestrial) | 9,108,100,600 | SRR3400834 |
| Conehead cricket mix Hubei (subset of ZCM) | WHLC | Arthropoda: Insecta | <i>Conocephalus</i> sp.(4) | Whole individual | Hubei (Terrestrial) | 2,450,413,000 | SRR3400836 |
| Cricket mix Hubei (subset of ZCM) | WHXS | Arthropoda: Insecta | <i>Gryllidae</i> sp.(3) | Whole individual | Hubei (Terrestrial) | 3,707,111,000 | SRR3400837 |
| Diptera mix Hubei | SCM | Arthropoda: Insecta | <i>Drosophila immigrans</i> (3), <i>Episyrphus balteatus</i> (3), <i>Diptera</i> sp (2 species, 5-10 individuals), <i>Sarcophaga</i> sp, <i>Muscina stabulans</i> (5-10), <i>Ptecticus tenebrifer</i> (5-10), <i>Ptecticus</i> sp (5-10) | Whole individual | Hubei (Terrestrial) | 9,662,701,600 | SRR3400838 |
| Earwig mix Hubei | GCM | Arthropoda: Insecta | <i>Dermaptera</i> sp.(10) | | Hubei (Terrestrial) | 3,759,661,600 | SRR3400839 |
| Flea and ants mix Hubei (subset of arthropodmix) | WHZM | Arthropoda: Insecta | <i>Ctenocephalides felis</i> (10-15), <i>Tetramorium tsushimae</i> (N/A) | Whole individual | Hubei (Terrestrial) | 1,680,999,000 | SRR3400840 |
| Freshwater heteroptera Shahe (subset of SHWCII) | SHWC01c | Arthropoda: Insecta | <i>Heteroptera</i> sp.(12) | Whole individual | Beijing (Freshwater) | 3,045,273,000 | SRR3400841 |
| Heteroptera mix Hubei (subset of arthropodmix) | WHYCM | Arthropoda: Insecta | <i>Heteroptera</i> sp.(10) | Whole individual | Hubei (Terrestrial) | 3,702,569,600 | SRR3400891 |
| Horseflies ^a | Horsefly | Arthropoda: Insecta | <i>Tabanidae</i> sp. (5 species, 22 individuals) | Whole individual | Hubei (Terrestrial) | 8,721,642,060 | SRX833673 |
| Insects mix 1 ^a | InsectZJ | Arthropoda: Insecta | <i>Abraxas tenuisuffusa</i> (1), <i>Hermetia illucens</i> (N/A), <i>Chrysopidae</i> sp (2), <i>Coleoptera</i> sp. (1), <i>Psychoda alternata</i> (1), <i>Diptera</i> sp. (N/A), <i>Stratiomyidae</i> sp (2) | Whole individual | Zhejiang (Terrestrial) | 7,745,172,660 | SRX833685 |
| Insects mix 2 ^a | CC | Arthropoda: Insecta | <i>Hippoboscidae</i> sp. (2 species, 10-15 individuals), <i>Cimex hemipterus</i> (8) | Whole individual | Hubei (Terrestrial) | 5,916,431,520 | SRX833687 |
| Insects mix 4 ^a | WHCCII | Arthropoda: Insecta | <i>Psychoda alternata</i> (3), <i>Velarifictorus micado</i> (4), <i>Crocothemis servilia</i> (1), <i>Phoridae</i> sp (1), <i>Lampyridae</i> sp (1), <i>Aphelinus</i> sp (~10), <i>Hyalopterus pruni</i> (~10), <i>Aulacorthum magnolia</i> (~10) | Whole individual | Hubei (Terrestrial) | 6,882,491,800 | SRX833692 |
| Lepidoptera mix Hubei | LCM | Arthropoda: Insecta | <i>Helcyra</i> sp (1), <i>Papilio polytes</i> (1), <i>Pieris rapae</i> (6), <i>Nolidae</i> sp. (1), <i>Stauropus basalus</i> (2), <i>Peridea</i> sp (1), <i>Amraica superans</i> (1), <i>Calliteara</i> sp. (1), <i>Lymantriidae</i> sp. (1), <i>Noctuidae</i> sp. (4), <i>Clostera anastomosis</i> (1), <i>Hypomecis punctinalis</i> (1), <i>Eumorphobotys</i> sp (1), <i>Micromelalopha sieversi</i> (1) | Whole individual | Hubei (Terrestrial) | 7,038,068,800 | SRR3400941 |
| Mosquitoes - Hubei S (subset of mosHB) | 3mos | Arthropoda: Insecta | <i>Culex tritaeniorhynchus</i> (5-10), <i>Armigeres subalbatus</i> (5-10) | Whole individual | Hubei (Terrestrial) | 5,629,066,740 | SRR3401027 |
| Mosquitoes - Hubei ^a | mosHB | Arthropoda: Insecta | <i>Aedes</i> sp. (5), <i>Armigeres subalbatus</i> (~50), <i>Anopheles sinensis</i> (~60), <i>Culex quinquefasciatus</i> (~50), <i>Culex tritaeniorhynchus</i> (~30) | Whole individual | Hubei (Terrestrial) | 26,606,799,000 | SRX833542 |
| Mosquitoes - Zhejiang ^a | mosZJ | Arthropoda: Insecta | <i>Aedes albopictus</i> (5), <i>Armigeres subalbatus</i> (~30), <i>Anopheles paraliae</i> (~10), <i>Anopheles sinensis</i> (~20), <i>Culex pipiens</i> (~30), <i>Culex</i> sp. (~10), <i>Culex tritaeniorhynchus</i> (~70) | Whole individual | Zhejiang (Terrestrial) | 7,233,954,480 | SRX833670 |
| Odonata mix Hubei | QTM | Arthropoda: Insecta | <i>Paracercion melanotum</i> (9), <i>Paracercion calamorum</i> (5), <i>Ceragrion auranticum</i> (10), <i>Brachydiplax chalybea</i> (2), <i>Orthetrum albistylum</i> (1), <i>Pseudothemis zonata</i> (6), <i>Chironomus</i> sp (1) | Whole individual | Hubei (Terrestrial) | 9,226,350,400 | SRR3401072 |
| Orthoptera mix Hubei ^a | ZCM | Arthropoda: Insecta | <i>Orthoptera</i> sp (3), <i>Conocephalus</i> sp (4), <i>Gryllidae</i> sp.(3) | Whole individual | Hubei (Terrestrial) | 7,042,417,800 | SRX1029952 |
| True flies ^a | Fly | Arthropoda: Insecta | <i>Atherigona orientalis</i> (2), <i>Chrysomya megacephala</i> (6), <i>Lucilia sericata</i> (1), <i>Musca domestica</i> (11), <i>Sarcophaga dux</i> (1), <i>S. peregrine</i> (1), <i>S. sp.</i> (1) | Whole individual | Hubei (Terrestrial) | 6,574,954,320 | SRX833672 |
| Water striders ^a | SXSSP | Arthropoda: Insecta | <i>Gerridae</i> sp. (2 species, 12 individuals) | Whole individual | Hubei (Land/Freshwater) | 3,154,714,200 | SRX833675 |
| Horseshoe crab mix Beihai | HOU | Arthropoda: Chelicerata | <i>Carcinoscorpius rotundicauda</i> (8), <i>Tachypleus tridentatus</i> (4) | Whole individual | Guangxi (Costal/Marine) | 13,357,396,400 | SRR3401116 |
| Spiders ^a | spider | Arthropoda: Chelicerata | <i>Neoscona nautica</i> (14), <i>Parasteatoda tepidariorum</i> (3), <i>Plexippus setipes</i> (3), <i>Pirata</i> sp. (1), <i>Araneae</i> sp (8). | Whole individual | Hubei (Terrestrial) | 11,361,912,300 | SRX833697 |
| <i>Tetragnatha maxillosa</i> mix Hubei (subset of arthropodmix) | SSZZ | Arthropoda: Chelicerata | <i>Tetragnatha maxillosa</i> (2) | Whole individual | Hubei (Land/Freshwater) | 2,933,255,400 | SRR3401144 |

| | | | | | | | |
|---|-----------|-------------------------|--|---|--|----------------|------------|
| Tick <i>Rhipicephalus microplus</i>^a | microplus | Arthropoda: Chelicerata | <i>Rhipicephalus microplus</i> (5) | Whole individual | Hubei (Terrestrial) | 1,080,824,801 | - |
| Ticks <i>Hyalomma asiaticum</i>^a | Liyampi | Arthropoda: Chelicerata | <i>Hyalomma asiaticum</i> (3) | Whole individual | Xinjiang (Terrestrial) | 2,006,000,100 | SRX833696 |
| Ticks^a | Tick | Arthropoda: Chelicerata | <i>Dermacentor marginatus</i> (4), <i>Dermacentor</i> sp (2), <i>Haemaphysalis doenitzii</i> (3), <i>H. longicornis</i> (4), <i>H. sp.</i> (2), <i>H. formosensis</i> (4), <i>Hyalomma asiaticum</i> (8), <i>Rhipicephalus microplus</i> (6), <i>Argas miniatus</i> (2) | Whole individual | Hubei, Zhejiang, Beijing, Xinjiang (Terrestrial) | 24,708,479,580 | SRX833694 |
| House centipede mix Hubei (subset of arthropodmix) | WHYY | Arthropoda: Myriapoda | <i>Scutigera</i> sp.(2) | Whole individual | Hubei (Terrestrial) | 2,543,734,600 | SRR3401181 |
| Millipedes^a | WHWG | Arthropoda: Myriapoda | <i>Polydesmidae</i> sp. (2 species, 12 individuals) | Whole individual | Hubei, Beijing (Terrestrial) | 7,176,702,400 | SRX833700 |
| Myriapoda mix Hubei^a | WGML | Arthropoda: Myriapoda | <i>Diplopoda</i> sp. (7), <i>Otostigmus scaber</i> (4), <i>Scolopocryptops</i> sp (3), <i>Otostigmus scaber</i> (1), <i>Myriapoda</i> sp (1). | Whole individual | Hubei (Terrestrial) | 7,337,861,800 | SRX1029951 |
| Barnacle mix Beihai^a | BHTH | Arthropoda: Crustacea | <i>Amphibalanus rhizophorae</i> (12) | Whole individual (Shell excluded) | Guangxi (Costal/Marine) | 6,150,114,400 | SRX1029956 |
| Blue swimmer crab mix Beihai | YYSZX | Arthropoda: Crustacea | <i>Portunus</i> sp.(12) | Representative tissues from gill, various glands, and muscle | Beihai (Costal/Marine) | 6,903,426,200 | SRR3401268 |
| <i>Charybdis</i> crab mix Beihai | BHXun | Arthropoda: Crustacea | <i>Charybdis</i> sp.(12) | Representative tissues from gill, various glands, muscle, and stomach (cleaned) | Guangxi (Costal/Marine) | 6,439,342,400 | SRR3401303 |
| <i>Charybdis</i> crab mix Wenzhou | WZRBX | Arthropoda: Crustacea | <i>Charybdis hellerii</i> (2), <i>Charybdis japonica</i> (9), <i>Charybdis lucifera</i> (1) | Representative tissues from gill, various glands, muscle, and stomach (cleared) | Zhejiang (Costal/Marine) | 5,871,404,400 | SRR3401356 |
| Crayfish mix Changjiang | CJLX | Arthropoda: Crustacea | <i>Procambarus clarkia</i> (12) | Major organs in the head and gut (cleaned) | Hubei (Freshwater) | 5,235,384,200 | SRR3401357 |
| Crustacean mix Wenling | WLJQ | Arthropoda: Crustacea | <i>Brachyura</i> sp. (2 species, 6), <i>Achelata</i> sp. (3), <i>Penaeoidea</i> sp. (2 species, 3), <i>Ibacus novemdentatus</i> (3), <i>Anomura</i> sp. (3), <i>Penaeidae</i> sp. (2), <i>Charybdis bimaculata</i> (3), <i>Charybdis rufodactylus</i> (3), <i>Latreillidae</i> sp. (2 species, 3), <i>Ovalipes punctatus</i> (3) | Representative tissues from gill, various glands, muscle, and stomach/gut (cleared) | Zhejiang (Costal/Marine) | 12,635,742,600 | SRR3401358 |
| Fiddler crab mix Beihai | BFZCX | Arthropoda: Crustacea | <i>Uca borealis</i> (12) | Whole individual | Guangxi (Costal/Marine) | 2,798,966,000 | SRR3401359 |
| Freshwater atyid shrimp Sanxia | SXXX | Arthropoda: Crustacea | <i>Atyidae</i> sp. (10) | Whole individual | Hubei (Freshwater) | 6,994,006,000 | SRR3401361 |
| Freshwater isoptera Shahe (subset of SHWCII) | SHWC0209c | Arthropoda: Crustacea | <i>Daphnia magna</i> (N/A), <i>Daphnia carinata</i> (N/A), <i>Moina macrocopa</i> (N/A) | Whole individual | Beijing (Freshwater) | 3,629,030,800 | SRR3401363 |
| Hermit crab mix Beihai | BHJJX | Arthropoda: Crustacea | <i>Anomura</i> sp. (2 species, 12 individuals) | Representative tissues from gill, various glands, muscle, and stomach/gut (cleared) | Guangxi (Costal/Marine) | 5,901,889,800 | SRR3401367 |
| Mantis shrimp mix Beihai | BHXG | Arthropoda: Crustacea | <i>Miyakea</i> sp.(12) | Representative tissues from gill, various glands, muscle, and gut (cleared) | Guangxi (Costal/Marine) | 2,942,421,800 | SRR3401372 |
| Penaeid shrimp mix Beihai I | BHBIDX | Arthropoda: Crustacea | <i>Penaeidae</i> sp. (4 species, 12 individuals) | Representative tissues from gill, various glands, muscle, and gut (cleared) | Guangxi (Costal/Marine) | 5,585,967,800 | SRR3401376 |
| Penaeid shrimp mix Beihai II | BHWZXX | Arthropoda: Crustacea | <i>Penaeidae</i> sp. (12) | Representative tissues from gill, various glands, muscle, and gut (cleared) | Guangxi (Costal/Marine) | 5,818,589,600 | SRR3401379 |
| Pillworm mix Hubei | WHSFII | Arthropoda: Crustacea | <i>Armadillidium vulgare</i> (12), <i>Armadillidium</i> sp. (N/A) | Whole individual | Hubei (Terrestrial) | 8,006,953,800 | SRR3401380 |
| Pillworm mix Hubei PolyA^b | WHSF | Arthropoda: Crustacea | <i>Armadillidium vulgare</i> (12), <i>Armadillidium</i> sp. (N/A) | Whole individual | Hubei (Terrestrial) | 3,004,821,000 | SRR3401383 |

| | | | | | | | |
|---|--------------|-----------------------|---|---|--------------------------|----------------|------------|
| Sesamid crab mix Beihai | SCJXSX | Arthropoda: Crustacea | <i>Perisesarma bidens</i> (8) | Representative tissues from gill, various glands, muscle, and stomach (cleared) | Guangxi (Costal/Marine) | 6,176,296,400 | SRR3401386 |
| Shrimps ^a | Shrimp | Arthropoda: Crustacea | <i>Exopalaemon carinicauda</i> (12), <i>Metapenaeus</i> sp. (6), <i>Solenocera crassicornis</i> (6), <i>Penaeus monodon</i> (12), <i>Litopenaeus vannamei</i> (12) | Representative tissues from gill, various glands, muscle, and gut | Zhejiang (Costal/Marine) | 5,365,359,900 | SRX833698 |
| Tiger crab mix Beihai | HWRTX | Arthropoda: Crustacea | <i>Orithyia</i> sp.(12) | Representative tissues from gill, various glands, muscle, and stomach (cleared) | Guangxi (Costal/Marine) | 4,795,618,600 | SRR3401390 |
| Wharf roach mix Beihai | BHHZL | Arthropoda: Crustacea | <i>Ligia exotica</i> (12) | Whole individual | Guangxi (Costal/Marine) | 7,045,711,200 | SRR3401392 |
| Woodlouse mix Beihai | BHTSS | Arthropoda: Crustacea | <i>Sphaeroma</i> sp. (11), <i>Isopoda</i> sp.(1) | Whole individual | Guangxi (Costal/Marine) | 6,651,427,000 | SRR3401395 |
| Arthropod mix Hubei ^a | Arthropodmix | Arthropoda | <i>Cicadellidae</i> sp. (10), <i>Tetragnatha maxillosa</i> (1), <i>Heteroptera</i> sp. (10), <i>Scutigera</i> sp. (2), <i>Ctenocephalides felis</i> (10-15), <i>Tetramorium tsushimae</i> (N/A) | Whole individual | Hubei (Terrestrial) | 7,768,505,600 | SRX1029954 |
| Freshwater arthropod Shahe | SHWCII | Arthropoda | <i>Heteroptera</i> sp. (12), <i>Daphnia magna</i> (N/A), <i>Daphnia carinata</i> (N/A), <i>Moina macrocopa</i> (N/A) | Whole individual | Beijing (Freshwater) | 13,203,058,800 | SRR3401396 |
| Freshwater arthropod Shahe PolyA (same pool as Freshwater arthropod Shahe) ^b | SHWC | Arthropoda | <i>Heteroptera</i> sp. (12), <i>Daphnia magna</i> (N/A), <i>Daphnia carinata</i> (N/A), <i>Moina macrocopa</i> (N/A) | Whole individual | Beijing (Freshwater) | 6,709,741,800 | SRR3401397 |
| Insects mix 3 ^a | WHCC | Arthropoda | <i>Pseudothemis zonata</i> (2), <i>Nepidae</i> sp (2 species, 3), <i>Camponotus japonicus</i> (~5), <i>Diplonychus</i> sp (2), <i>Asellus</i> sp (N/A) | Whole individual | Hubei (Terrestrial) | 11,973,368,200 | SRX833688 |
| Chicken gut roundworm mix Hubei | WHJHC | Nematoda | <i>Ascaridia galli</i> (1) | Whole individual | Hubei (Terrestrial) | 2,927,034,400 | SRR3401442 |
| Chicken gut roundworm mix Shayang | SYJFC | Nematoda | <i>Ascaridia galli</i> (15) | Whole individual | Hubei (Terrestrial) | 6,544,479,600 | SRR3401450 |
| Common pheasant gut roundworm mix | JMYJCC | Nematoda | <i>Ascaridia</i> sp. (20) | Whole individual | Hubei (Terrestrial) | 6,882,381,600 | SRR3401460 |
| Large pig roundworm mix Hubei | WHZHC | Nematoda | <i>Ascaris suum</i> (10) | Whole individual | Hubei (Terrestrial) | 6,813,270,000 | SRR3401464 |
| Romanomermis nematode mix Wuchang | WCLSXC | Nematoda | <i>Romanomermis</i> sp.(N/A) | Front, middle, and rear section of the worm | Hubei (Terrestrial) | 6,901,779,600 | SRR3401495 |
| Roundworm mix Hubei | HC | Nematoda | <i>Ascaridia galli</i> (1), <i>Ascaris suum</i> (6) | Front, middle, and rear section of the worm | Hubei (Terrestrial) | 5,125,628,600 | SRR3401500 |
| Snake-associated nematodes mix Xinzhou | XZSJSC | Nematoda | <i>Nematoda</i> sp. (14), <i>Ascarididae</i> sp.(2) | Whole individual | Hubei (Terrestrial) | 6,303,423,200 | SRR3401559 |
| Spirurian nematodes mix Hubei | WHSWHC | Nematoda | <i>Spirurida</i> sp1.(4) | Whole individual | Hubei (Terrestrial) | 6,210,937,000 | SRR3401566 |
| Spirurian nematodes mix Xinshan | XSNXC | Nematoda | <i>Spirurida</i> sp2.(45) | Whole individual | Zhejiang (Terrestrial) | 7,004,525,000 | SRR3401569 |
| Peanut worms mix Beihai | BHNXC | Sipuncula | <i>Phascolosoma esculenta</i> (12), <i>Sipunculus nudus</i> (12) | Whole individual | Guangxi (Costal/Marine) | 7,041,903,800 | SRR3401570 |
| Earthworm mix Changping | CPQY | Annelida | <i>Oligochaeta</i> sp. (2 species, 12 individuals) | Whole individual | Beijing (Terrestrial) | 2,191,254,200 | SRR3401619 |
| Leech mix Hubei | SZmix | Annelida | <i>Whitmania pigra</i> (11) | Inner organs | Hubei (Freshwater) | 6,235,167,800 | SRR3401621 |
| Sandworms mix Beihai | BHSC | Annelida | <i>Marphysa</i> sp (12), <i>Nereis aiubhitensis</i> (12) | Whole individual | Guangxi (Costal/Marine) | 6,114,388,200 | SRX1712659 |
| Bivalva mix Beihai PolyA ^b | BHBei | Mollusca | <i>Anadara sativa</i> (12), <i>Crassostrea hongkongensis</i> (12), <i>Anomalocardia producta</i> (12), <i>Solen strictus</i> (12), <i>Paphia undulata</i> (10), <i>Veneridae</i> sp (2). | Visceral mass with gut content removed if possible | Guangxi (Costal/Marine) | 6,514,906,000 | SRX1712661 |
| Bivalva mix Wenzhou | Beimix | Mollusca | <i>Barbatia virescens</i> (12), <i>Sinonovacula constricta</i> (12), <i>Tegillarca granosa</i> (12), <i>Crassostrea ariakensis</i> (12), <i>Mytilus coruscus</i> (12) | Visceral mass with gut content removed if possible | Zhejiang (Costal/Marine) | 8,971,077,600 | SRX1712664 |
| Bivalva mix Wenzhou PolyA (same pool as Beimix) ^b | WZSBei | Mollusca | <i>Barbatia virescens</i> (12), <i>Sinonovacula constricta</i> (12), <i>Tegillarca granosa</i> (12), <i>Crassostrea ariakensis</i> (12), <i>Mytilus coruscus</i> (12) | Visceral mass with gut content removed if possible | Zhejiang (Costal/Marine) | 5,831,177,600 | SRX1712669 |
| Channeled applesnail mix | WZFSL | Mollusca | <i>Pomacea canaliculata</i> (12) | Visceral mass | Zhejiang (Freshwater) | 5,978,349,200 | SRX1712672 |

| Wenzhou | | | | | | | | |
|--|----------|-----------------|--|--|--------------------------|---------------|------------|--|
| Chinese land snail mix Wuhan | WHWN | Mollusca | <i>Mastiguelota kiangsinensis</i> (12) | Visceral mass with gut content removed | Hubei (Land/Freshwater) | 6,347,332,000 | SRX1712673 | |
| Freshwater shellfish (<i>Unio douglasiae</i>) mix Wuhan | WHBL | Mollusca | <i>Unio douglasiae</i> (12) | Visceral mass with gut content removed | Hubei (Freshwater) | 6,105,707,200 | SRX1712674 | |
| Gastropoda mix Wenzhou | WZSLuoI | Mollusca | <i>Neverita didyma</i> (12), <i>Chlorostoma turbinatum</i> (12), <i>Turritella bacillum</i> (12), <i>Reishia bronni</i> (12) | Visceral mass with gut content removed if possible | Zhejiang (Costal/Marine) | 4,792,141,800 | SRX1712690 | |
| Gastropoda mix Wenzhou PolyA (same pool as WZSLuoI) ^b | WZSLuoII | Mollusca | <i>Neverita didyma</i> (12), <i>Chlorostoma turbinatum</i> (12), <i>Turritella bacillum</i> (12), <i>Reishia bronni</i> (12) | Visceral mass with gut content removed if possible | Zhejiang (Costal/Marine) | 6,030,622,200 | SRX1712699 | |
| Murex snails mix Beihai | BHCL | Mollusca | <i>Chicoreus asianus</i> (12) | Visceral mass with gut content removed | Guangxi (Costal/Marine) | 5,674,728,400 | SRX1712833 | |
| Octopus mix Beihai | BHZY | Mollusca | <i>Octopodidae sp.</i> (12) | Visceral mass with gut content removed | Guangxi (Costal/Marine) | 6,476,318,600 | SRX1712836 | |
| <i>Paphia</i> shell mix Beihai | BWBFG | Mollusca | <i>Paphia undulata</i> (10), <i>Veneridae sp.</i> (2) | Visceral mass | Guangxi (Costal/Marine) | 4,754,857,000 | SRX1712837 | |
| Razor shell mix Beihai | BHZC | Mollusca | <i>Solen strictus</i> (12) | Visceral mass with gut content removed | Guangxi (Costal/Marine) | 5,134,546,200 | SRX1712840 | |
| <i>Turritella</i> sea snails mix Beihai | BZL | Mollusca | <i>Turritella sp.</i> (12) | Visceral mass with gut content removed | Guangxi (Costal/Marine) | 5,294,621,400 | SRX1712841 | |
| Blood flukes mix Anhui 1 | JSC | Platyhelminthes | <i>Schistosoma mansoni</i> (N/A), <i>Schistosoma japonicum</i> (N/A) | Whole individual | Anhui (Freshwater) | 6,229,641,400 | SRX1712974 | |
| Blood flukes mix Anhui 2 | RBXXC | Platyhelminthes | <i>Schistosoma japonicum</i> (N/A) | Whole individual | Anhui (Freshwater) | 7,156,816,600 | SRX1712977 | |
| Blood flukes mix Hubei | HBXXC | Platyhelminthes | <i>Schistosoma japonicum</i> (N/A) | Whole individual | Hubei (Freshwater) | 7,121,948,800 | SRX1712978 | |
| Tapeworm mix Hubei | SGJSC | Platyhelminthes | <i>Taenia sp.</i> (8) | Whole individual | Hubei (Terrestrial) | 6,651,705,600 | SRX1712979 | |
| Echinoderm mix Beihai | BHJP | Echinodermata | <i>Temnopleurus sp.</i> (3), <i>Dendrochirotida sp.</i> (9) | Inner organs | Guangxi (Costal/Marine) | 5,314,194,400 | SRX1712980 | |
| Tunicates mix Beihai | BHHQ | Tunicata | <i>Styela plicata</i> (N/A), <i>Stolidobranchia sp.</i> (N/A) | Inner organs | Guangxi (Costal/Marine) | 6,111,464,000 | SRX1712981 | |
| Sea anemones mix Beihai | BHHK | Cnidaria | <i>Bolocera sp.</i> (12) | Whole individual | Guangxi (Costal/Marine) | 4,684,310,400 | SRX1712982 | |

^aThese libraries were described in previous studies^{3,6,9}.

^bThese libraries were prepared using the TruSeq mRNA Library Preparation protocol (Illumina) that only targeted RNA with poly (A) tails.