

类人猿现状

疾病、健康与类人猿保护



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作者：Alona Rivord

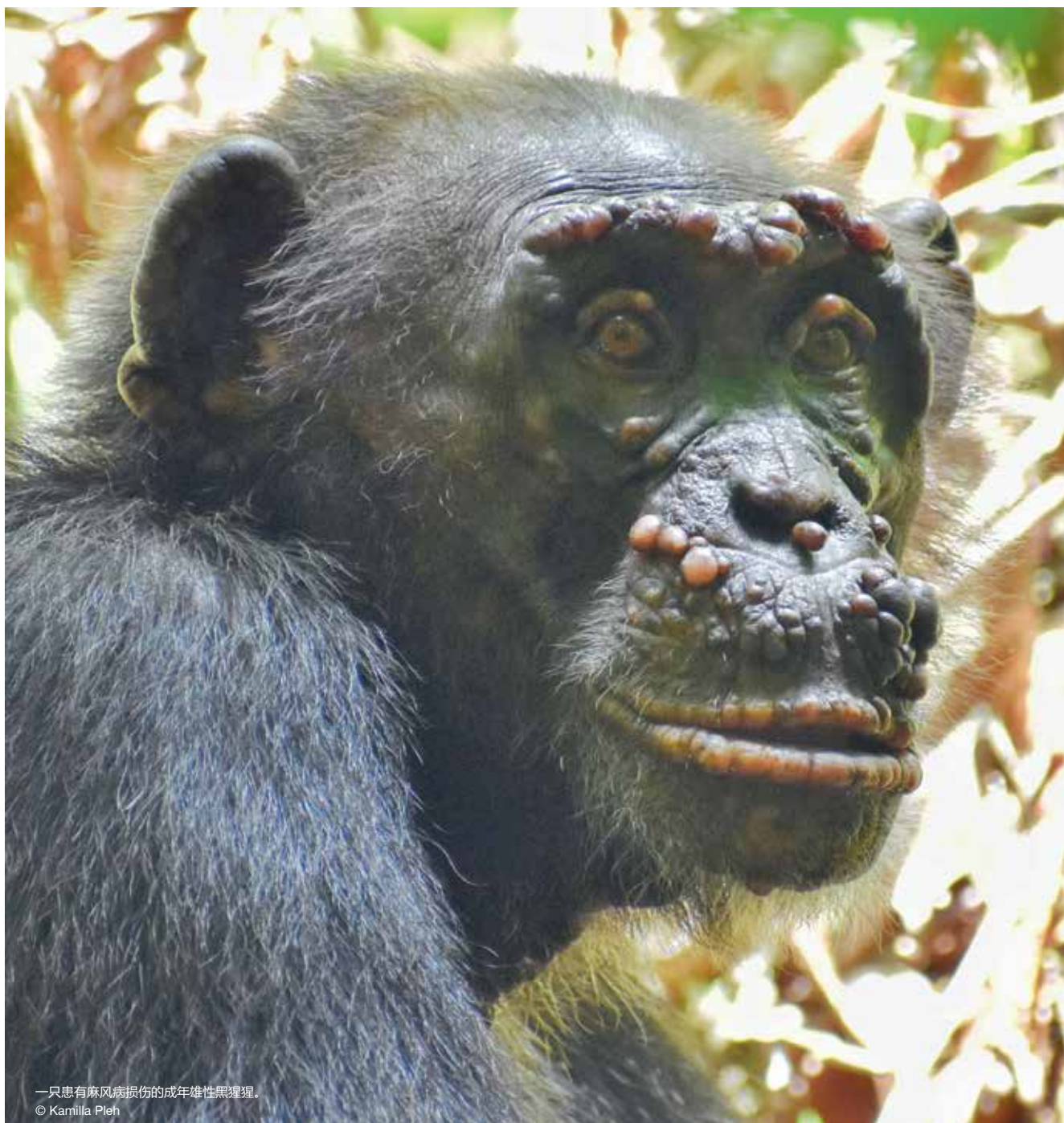
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介绍

这份政策简报参照《类人猿现状：疾病、健康与类人猿保护》，这是《类人猿现状》系列丛书的第五卷。除了政策制定者，其他群体，包括环境保护工作者、慈善机构、研究人员和科学家，对改善类人猿健康和福祉都能起到作用。这份政策简报介绍这些利益攸关方可以采取的行动。因为所有类人猿都是濒危物种，所以作为一项紧急事项，保护在人工饲养、半人工饲养和野外环境的类人猿的健康和福祉，极其重要。政策制定者对催化采取行动能起到重要作用，因为他们有能力形成赋能的环境，使其他利益攸关方采取必不可少的行动。

对类人猿的健康风险

人工饲养、半人工饲养和野外类人猿种群的健康风险，包括传染性疾病和非传染性健康问题。这些在本卷《第1章：对类人猿疾病和健康的评述》中介绍。因为这些风险会导致濒危个体或小群的疾病和死亡，所以，参与类人猿种群及其健康管理的所有利益攸关方必须理解这些风险及其成因。管理类人猿健康是一项重要的政策优先重点，不仅因为类人猿是濒危物种，有本身固有的、生态和经济价值，而且因为类人猿和人类易患类似疾病，能形成人猿之间双向传播。¹ 比如，类人猿会患影响人类的疾病，比如麻风和雅司病。² 与此类似，一些人类疾病，比如埃博拉、人类免疫缺陷病毒和疟疾，来源于类人猿



一只患有麻风病损伤的成年雄性黑猩猩。
© Kamilla Pleh

或者类人猿是宿主。³ 因此，管理类人猿的健康对人类健康有重要影响，政策制定者和其他利益攸关方群体应把它作为优先事项。

传染性疾病及其影响

细菌、寄生生物和病毒导致的传染性疾病，对类人猿是重大威胁，是类人猿疾病和死亡的首要原因。⁴ 来自人类的疾病爆发在人工饲养和野外环境都很常见。⁵ 由于基因相似，类人猿很容易患人类疾病，类人猿对这些疾病可能没有免疫性。⁶ 为了应对传染性疾病风险，政策制定者应重视带来人类行为转变的政策，减少会导致健康风险的行为，同时，支持更多开展对新出现疾病和这些疾病对类人猿潜在影响的研究。⁷

野外类人猿

虽然信息空白空缺依然存在，已知许多病原体对野生大型类人猿的健康和存续有可测量的影响。这些包括细菌性、寄生生物引起的和病毒性疾病。细菌性感染，比如炭疽、麻风和结核病，对类人猿种群有破坏性影响。⁸ 称为疥疮的寄生生物感染性皮肤病，由一种螨虫导致。这种疾病接触传染性强，如果不予治疗，对类人猿会是致命的。⁹ 埃博拉、猴痘和猴免疫缺陷病毒等在类人猿自然发生的病毒和人类传播的呼吸系统病原体，都会导致类人猿疾病和死亡，给野生种群带来灾难性影响。¹⁰

类人猿食谱、社会结构和觅食行为行为的差异，影响野生动物群体接触疾病的风险和疾病传播。¹¹ 物种的社会结构不同，因此，同一个病原体在不同的物种传播方式可能不同，这是一个重要事实。¹² 还需要开展更多研究，加深对野外类人猿疾病的了解，启发降低类人猿和人类风险的策略。¹³

人工饲养和半人工饲养的类人猿

与野外类人猿相似，人工饲养和半人工饲养的类人猿的传染性疾病包括细菌、寄生生物和病毒。¹⁴ 另外，在养护所的许多类人猿，尤其美国的养护所，为研究目的，故意使类人猿感染各种病原体，这可能需要专门关注。¹⁵ 人工饲养和半人工饲养类人猿的细菌性感染包括：气囊炎，黑猩猩八叠球菌暂定种，麻风，疟疾，类鼻疽，肺炎链球菌，结核病和雅司病。¹⁶ 类人猿身体上寄生物很常见，人工饲养环境的类人猿已经记录过临床迹象。¹⁷ 影响人工饲养的类人猿的病毒包括疱疹、人类呼吸系统病原体、猴痘和新型冠状病毒（与新冠肺炎相关的病毒）。¹⁸

为降低传播给人工饲养和半人工饲养的类人猿的传染病风险，近距离接触类人猿工作的人必须遵守严格的生物安全做法和卫生规则。¹⁹ 为了支持遵守这些对类人猿和人类安全都很重要的预防措施，政策制定者应把维护人工饲养和半人工饲养类人猿健康的最佳管理实践纳入国内法律框架。另外，为了支持设施管理者的能力建设，认证协会可以促进成立知识共享网络。

非传染性健康问题

除了传染性疾病，人工饲养和野外环境的类人猿还面临非传染性健康问题。这些问题包括：伤害，退行性病症，心理压力和生理压力。因为非传染性健康问题大多能够预防，政策制定者增加对这些问题及其成因的知识，以便支持更好的管理实践，这很重要。

我们对人工饲养和半人工饲养种群的非传染性健康问题了解更多。人工饲养的类人猿一般会有人工饲养环境直接或间接导致的病症，这些病症在野外类人猿种群较为罕见。²⁰ 这些病症包括与年龄、营养不良和心理压力相关的问题。比如，由于寿命增加，人工饲养的类人猿会患与年龄相关的退行性病症，虽然可以治疗，但是无法避免。另外，人工饲养的类人猿可能发生营养不良，导致营养不足、肥胖，或者既营养不足又肥胖。此外，心理压力可能通过异常行为表现出来，比如对照护者或其他类人猿的攻击性，身体摇摆，吃粪便，过度揪扯毛发，食物反刍和再次咽下。²¹

类人猿健康风险的背后成因

传染性疾病的非传染性健康问题常常有一些相似的成因。²² 对政策制定者和其他利益攸关方来说，理解这些成因，可以实现更好地管理这些成因对类人猿存续的威胁。类人猿健康风险的成因包括：人工饲养的类人猿获得的照护，栖息地破坏和蚕食，非法贸易和非法人工饲养，工业开发，自然灾害，旅游业和研究活动，以及迁移转运和迁地放归。

生活在人工饲养环境

环境挑战和行为限制会损害人工饲养的类人猿的福祉。²³ 比如，人工饲养的类人猿会被局限在小的封闭环境、接触人类、卫生做法差、种群密度大，以及有压力的情形。²⁴ 对如何评价类人猿福祉的专业指南很少，即使有，也互相矛盾，所以常常由每个机构自行确定。另外，许多人工饲养设施资源匮乏，技术能力也有限。比如，养护所种群数量常常达到

或者超过容纳能力，相对来说很少养护所能有资源聘请科学家担任工作人员。²⁵

机构之间缺乏信息共享，继续妨碍对人工饲养类人猿的适当照护。²⁶ 妨碍信息共享的障碍包括语言、使用不同的系统，或者对协作持怀疑态度。²⁷ 此外，驯养动物健康和野生动物保护立法和法规常常都覆盖不到人工饲养类人猿的福祉。一些法律术语，比如把类人猿描述为财物、商品或资源，也贬低动物本身固有的价值，认为动物用途和动物苦难互不相干。²⁸

栖息地破坏和蚕食

在类人猿栖息地，有工业开发项目等人类存在和活动，这种情况在全球都在增加，人与类人猿的互动预计会增加。²⁹ 人类对类人猿栖息地的蚕食会导致类人猿食物供应减少、栖息

地丧失、中毒和种群衰退。³⁰ 这也会增加疾病从人们、家畜或驯化动物向类人猿转移的风险。³¹ 另外，互动会导致人类与野生动物的冲突或捕猎，导致类人猿遭受枪伤、活络锁套伤害和死亡。³² 对人类活动对类人猿健康的威胁，详见当前这一卷《类人猿现状》《第7章：类人猿现状：工业开发项目对类人猿的影响》，以及针对采掘行业、工业化农业和基础设施开发的之前三卷丛书。³³

非法贸易和非法人工饲养

非法贸易是对野生和人工饲养类人猿的一项威胁，即便在对类人猿有法律保护的地方，野生动物保护法律和实践也常常存在脱节。³⁴ 国内和国际法律框架，加上执法和震慑性处罚，对制止非法活动必不可少。不过，政策制定者也必须应对非法贸易和人工饲养的驱动因素。对这些话题的讨论，详见：《类人猿现状第4卷：捕杀、捕捉、贸易和保护》。³⁵



在全球范围内，人类在类人猿栖息地的活动正在增加，比如工业化种植油棕项目，导致人类破坏和侵占类人猿栖息地。

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人类与类人猿之间的互动，会导致人类与野生动物的冲突或捕猎，导致类人猿遭受枪伤、活络锁套伤害或死亡。被枪击伤、断了腿的猩猩。© IAR Indonesia

具体针对类人猿健康，政策制定者有必要意识到，非法饲养的类人猿因为饲养差和食谱不够全面，常常患营养不良。因为这些类人猿的经历和生存环境，它们也容易患人类疾病、创伤和精神健康问题。³⁶ 如果类人猿在条件不够的人工饲养条件饲养较长时间，身体变化可能无法恢复。³⁷ 一些非法饲养的类人猿被用作游客招揽项目，可能会对喂给它们使它们保持清醒或表演的酒精或药品成瘾。³⁸

在类人猿分布区国家，养护所和康复中心一般收容从野味/身体部件贸易和（供应宠物、动物园和娱乐设施的）活体类人猿贸易收缴的灵长类孤儿，以及在孤立的小片森林或种植田地发现的成年动物。³⁹ 虽然一些个体能康复放归，许多因为慢性健康病症、创伤和其他原因，不可能再放归野外。⁴⁰ 养护所和康复中心照顾被收缴的类人猿，对打击类人猿非法贩卖，起到重要但常常被低估的作用。⁴¹

非法捕捉和非法贸易对类人猿的健康和福祉带来负面影响。⁴² 增加自然环境保护工作者、慈善机构和政策制定者在

这一被忽略话题上针对类人猿福祉的对话，能更好地支持类人猿福祉和自然保护结果。在还没有针对动物福祉的国际法律框架的情况下，政策制定者应当倡导把适当的可执行的标准纳入机构政策、国家法律和专业认证项目中。

工业开发

类人猿所有种都受到工业开发项目的威胁，详见《第7章：类人猿现状：工业开发项目对类人猿的影响》和针对采掘行业、工业化农业和基础设施开发的《类人猿现状》第1至3卷。⁴³ 与工业项目相关的土地用途变更，导致栖息地和食物来源丧失，会影响类人猿健康。⁴⁴ 其他的有害环境因素包括噪音、中毒或各种形式的空气、土壤和水污染。⁴⁵ 另外，因为可以获得食物，类人猿可能被吸引到工业项目场址。由此导致类人猿、人和家畜之间接触增加，会导致疾病传播。⁴⁶

自然灾害

预计自然灾害发生的频率和严重程度会增加，给类人猿及其环境带来风险。⁴⁷预计人类导致的隐患也会增加。⁴⁸自然灾害会直接导致类人猿疾病和死亡，比如直接接触森林火灾，旱季时脱水，或洪灾时溺水。自然灾害对类人猿健康也会有间接影响。比如，栖息地破坏会导致类人猿分布变化，以及食物竞争等行为变化。⁴⁹另外，自然灾害会导致食物和庇护所丧失或减少，这会导致营养不良和出生率下降。⁵⁰像类人猿这样繁殖速度缓慢，或者对食谱有特别具体要求的动物，自然灾害导致即便种群数量轻微减少，也会有较大的负面影响。⁵¹对这些风险的讨论，详见当前这一卷《第6章：灾害管理和类人猿保护》。

旅游业和研究活动

野外和人工饲养的类人猿吸引当地和国际电影制作人、科学家、学生和游客。⁵²因此，类人猿旅游是对当地发展和就业是潜在贡献者，生物多样性保护资金的来源，以及国家和区域经济的支持者。⁵³不过，从20世纪70年代以来，旅游业也对疾病传播起到了作用。⁵⁴在类人猿分布区国家内外的野外和人工饲养环境，来自人类的病原体通过类人猿与人类接触，传播给类人猿。⁵⁵政策制定者也应当意识到参与类人猿研究和旅游业的人在接近类人猿时，也有可能接触类人猿疾病的风险。⁵⁶关于这一话题的更多信息，详见《第3章：旅游业和研究活动对类人猿健康的影响》。

野外类人猿的习惯化

野外类人猿必须习惯人类在场，才会让人们靠近和观察，不管是为了研究还是旅游。⁵⁷因此，习惯化构成对类人猿的风险，因为类人猿和人类之间更加靠近，增加传染性疾病直接传播的可能性。⁵⁸在野外环境，类人猿面临从被传染的猎人、当地社区、公园工作人员、研究者、游客和其他人传染疾病的风险。⁵⁹这种与人类的接触，有可能对类人猿整个小群都有破坏性。⁶⁰开展研究和旅游时，常常没有遵守最佳管理实践。⁶¹比如，游客经常走近习惯人类在场的类人猿，超过推荐的距离。⁶²不过，政策制定者有必要注意到，大多数记录在案的野外习惯化的类人猿的疾病越种传播来自当地社区、公园工作人员或研究者，而不是游客。⁶³

另外，参观和巡视类人猿，即便是对完全习惯人类在场的类人猿，也常常导致个体和小群行为变化，更高警惕级别，以及各种与压力相关的症状。⁶⁴即便采用最佳管理实践，人类对类人猿行为的一些影响不可避免地持续存在。⁶⁵这种行为





每年几十万游客参观类人猿设施，这带来相当大的疾病传播风险。
在马来西亚Semenggoh Wildlife Centre喂食平台上，游客们希望猩猩会出来吃早餐。© Alison White

干扰可能表现为对其他类人猿或人类的危险的攻击性。⁶⁶ 因此，考虑到习惯化对类人猿很长一段时间导致的压力水平，可以认为习惯化是有害的。⁶⁷

综合考虑所有这些因素，一些研究表明，与为旅游业的野外类人猿习惯化相关的风险可能最终超过自然保护的益处。⁶⁸ 不过，其他研究指出，没有类人猿旅游的经济激励，任何类人猿及其栖息地都不大可能保护下来。这对山地大猩猩等物种尤其相关，虽然山地大猩猩面临多种威胁，包括在该区域长久的武装冲突，山地大猩猩的种群逐步增加。⁶⁹ 因此，政策制定者和其他利益攸关方在制定这类项目的决定时，应当仔细考虑习惯化的成本和益处。

人类与人工饲养类人猿的接触

人工饲养和半人工饲养的类人猿的习惯化，因为人类照护者反复出现，常常不是故意的。⁷⁰ 习惯化也可以是故意的，以便促进对类人猿的照护或科学研究。⁷¹ 对人工饲养的类人猿来说，不熟悉的人在场以及食谱或社会结构的变化，可能导致类人猿经历生理压力。⁷² 并且，光是参观者的数量，以及类人猿与照护者之间日常密切接触，对在这些限制环境的类人猿构成威胁。⁷³ 比如，每年几十万游客参观类人猿设施，这带来疾病传播的较大风险。⁷⁴ 分布区国家养护所的一些类人猿能被放归野外，在人工饲养时与人类的接触也提供了把病原体带到野外的机会。⁷⁵

政策制定者应当对拯救中心和养护所等术语的使用保持警惕，因为这些设施没有受到法律管辖，采用这些术语并不意味着该设施提供了良好的动物福祉。⁷⁶ 动物旅游业的需求，正导致没有受到管制的人工饲养设施数量增加，这令人担忧。⁷⁷ 其中一些设施允许游客与黑猩猩、长臂猿和猩猩直接互动。⁷⁸ 管理不当的设施和与动物不当的互动，对动物福祉有不良影响，增加对异域宠物的需求，破坏自然保护。⁷⁹ 政策制定者应当制定管辖人工饲养类人猿管理的国内法律框架。另外，也需要执法努力和处罚，以支持遵法守法。

与大型类人猿的近距离相遇，在各种社交媒体平台上极其受欢迎。⁸⁰ 分享的照片和视频中人与动物密切接触这么火爆，会鼓励游客采取风险行为。⁸¹ 类人猿与人类密切接触的照片可能促进一种观点，认为这些动物是适合的宠物，不是濒危的。⁸² 这些照片和图像也给人一种印象，触摸类人猿是可以接受的，遮蔽与这些情形相关的卫生风险，破坏自然保护的目标。⁸³ 可以使用宣传项目，向社交媒体使用者宣传教育，

影响游客和设施管理者的行为。另外，社交媒体平台的经营者应当制定政策，防止和制止威胁野生动物健康或福祉的内容传播。

迁移转运和迁地放归

人工饲养的类人猿有时候在不同生物医学实验室、繁殖和经销商、娱乐或展览设施、私人家庭、拯救或康复中心、养护所和动物园之间迁移转运，对它们的健康和福祉带来负面影响。⁸⁴ 与此类似，对野外类人猿的捕捉、迁地放归和放归自然，也会对个体的身体和心理健康带来负面影响。⁸⁵ 在拯救时，对野外类人猿家庭小群的干扰，也有可能使恢复更复杂。⁸⁶ 对新的邻近野生小群之间的社会干扰，也会有长期的负面的社会影响。⁸⁷ 制定和遵守生物安全协议不到位，也带来把人类疾病传播给康复类人猿和野外类人猿种群的风险。⁸⁸ 有限的资源和承担能力，以及主管部门的压力，可能导致没有走完恰当的方案流程，就把动物放归大自然了。⁸⁹ 为了减少这些风险，需要制定和传播类人猿迁移转运和迁地放归的最佳管理实践。认证协会、自然保护机构、慈善机构、研究者和科学家应当协作，弥补这一空白。

对预防和管理健康风险的最佳实践建议

伦理考虑

政 政策制定者应当熟悉在类人猿照护和保护中可能出现的伦理困境，比如围绕人类导致的伤害、迁地放归和疫苗接种。是否在野外对类人猿的生命进行干预，是重要的伦理问题，需要具体情况具体分析。⁹⁰ 对这些困境的讨论，详见《第4章：管理类人猿健康：启发干预措施》和《第5章：类人猿健康和伦理》。

首先也是最重要的，政策制定者和其他利益攸关方有必要承认，类人猿个体的生命很重要，个体本身就有相关的类人猿人格。⁹¹ 有充裕的科学证据表明，类人猿有自主性、情感、语言、推理、自我意识、知觉和社会性，广泛认为这些是极为重要的人格基础。⁹² 类人猿，尤其是大型类人猿，其个体的人格权利和法定权利，越来越受到承认。⁹³ 《世界大型类人猿宣言》规定，大型类人猿享有生命权、在其栖息地自由生活权，以及不遭受强烈身体或心理痛苦的权利。⁹⁴

类人猿作为个体和作为集体成员，从伦理上讲都很重要。类人猿本身固有价值 and 生态价值对维护人类和其他物种依赖的健康和多产的生态系统起到重要作用。⁹⁵ 类人猿复杂的认知能力使类人猿能形成独特和宝贵的当地和种群文化。⁹⁶ 看到

种群和种群个体彻底互相依赖的关系，会鼓励保护类人猿社会关系网的努力。⁹⁷ 不过，历史上，为了促进物种或种群的可持续性，个体的利益曾被抹去。⁹⁸

自然保护和动物福祉方面的努力，应首先从照护的义务出发，包括对环境和个体患者照护的义务。⁹⁹ 在人工饲养的健康情形，照护义务的概念强调需要干预。¹⁰⁰ 不过，自然保护工作者和在野外类人猿环境工作的其他人员也有符合伦理行事的义务。¹⁰¹ 自从埃博拉疫情爆发以来，对类人猿在野外的干预就有一些辩论。¹⁰² 最近，又有新冠肺炎疫情，从跨物种健康政策的角度理解人类和类人猿健康，就变得极其重要。¹⁰³

围绕在研究过程中，为了对类人猿物种野外成员的益处，伤害人工饲养的类人猿是否可以接受，也出现了伦理困境。¹⁰⁴ 迄今为止，全世界对野外类人猿健康和疾病的诸多了解，来自对人工饲养类人猿开展的研究。¹⁰⁵ 不过，权衡研究的害处和益处，提出了难以回答的伦理困境。¹⁰⁶ 一些人主张，为了有益于有知觉的生命，对其他有知觉的生命施加害处的任何侵入性研究，在道德上是有问题的。¹⁰⁷ 无解的问题包括因为类人猿不能给予同意，是否应当禁止对其研究。¹⁰⁸ 或者，是否能把人类志愿者愿意参加实验研究作为类人猿的代理决定。¹⁰⁹ 理解这些多层面的伦理问题，能帮助使政策制定者准备好参与对类人猿健康的对话和决策。

干预治疗人类导致的伤害

兽医有明确的诊治照护的义务，在任何环境都聘请一位兽医，能缩短应急响应时间，增加成功概率，从而减少痛苦，改善动物福祉。¹¹⁰ 在野外，一位野生动物兽医从动物福祉和自然保护两个方面做出是否干预的决定，是他/她最重要的作用之一。在面对这一决定时，兽医有必要确定干预的潜在益处是否大于识别确定的对环境、个体和社会结构的风险。兽医也需要考虑一个社群里自然的动态，以及可能不是人类导致的一只个体受伤或疾病的正常风险。使用干预风险矩阵表探讨哪些活动增加有效性、增加可行性，或者同时增加有效性和可行性时，这种干预风险矩阵表提供了通往解决方案的路径，在这方面会有帮助。¹¹¹ 干预本身固有其风险性，应当只由有资格的人员尝试进行，比如经过实地训练的兽医，并且有非常了解目标类人猿、这个小群的其他类人猿和这片森林的人员陪同。¹¹²

类人猿经常遭受人类直接导致的伤害，比如成为猎人设置的针对其他野生动物的钢制捕兽夹和活络锁套的意外受害者。¹¹³ 这可能导致畸形、坏疽、感染、失去手脚或脓毒症等严重伤害，并可能导致死亡。¹¹⁴ 对幸存者来说，除了长期的痛苦，严重的活络锁套伤害会通过行为、繁殖成功和社会地位的影响，带来长期伤害。¹¹⁵ 因为这显然是人类引发的问题，兽医干预是诊治照护的义务。迅速处置能减轻疼痛和痛苦，减轻受伤的严重程度，保存行为完好和社会完整性，降低永久伤害的概率。¹¹⁶ 不过，移除活络锁套或其他原因的干预，要求通过飞镖实施麻醉。¹¹⁷ 为了减轻与这一流程相关的风险，应当满足一些标准，以便安全地实施这一试图做法。¹¹⁸ 需要有标准化的方案，客观地评估每种情形和确定成功的概率。



类人猿经常遭受人类直接导致的伤害，比如成为猎人设置的针对其他野生动物的钢制捕兽夹和活络锁套的意外受害者。卢旺达火山国家公园，因活络索套伤害失去手掌的山地大猩猩。

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对人类可能对类人猿受伤间接负责的情况，是否干预的决定就不是那么清楚明确。¹¹⁹ 比如，打斗导致创伤是自然现象，但是人类蚕食栖息地可能加剧了打斗。¹²⁰ 对只数很少、每一只个体的基因贡献对种群的健康都很重要的类人猿物种，在兽医评价认为如不采取干预，会有死亡等存疑愈后时，可以采取深思熟虑的救护个体的干预努力。

类人猿迁地放归

把野外类人猿从一个栖息地迁移到另一个栖息地放归，是为了平衡自然保护需要和开发使用土地需要所采取的一项降低风险工具。¹²¹ 不过，迁地放归会导致死亡或对社会小群的干扰，也引发伦理困境。¹²² 迁地放归也要求广泛的规划和稳定的财务资源。¹²³ 开展有效的类人猿放归后监测，花费不菲，开展困难。¹²⁴ 因此，极少开展迁地放归后监测。¹²⁵ 应安排更多资金开展这类监测。

政策制定者和自然保护工作者需要进一步讨论迁地放归的成本和益处。¹²⁶ 利益攸关方应制定并定期更新减少疾病风险和传播、提高对病原体监测和实施减轻措施的政策，把疾病爆发的可能性降到最低。¹²⁷ 虽然健康干预的要求极少正式成文，世界自然保护联盟提供了野生动物迁地保护和大型类人猿疾病风险管理的最佳实践指导原则，可以支持政策制定者的思考决定。¹²⁸ 对任何大型类人猿放归大自然的审慎原则要求，首先不应危及已经住在那里的野生种群。

类人猿疫苗接种

对类人猿接种预防疾病的疫苗，是有争议的，引发与疫苗接种安全性和有效性相关的伦理困境。¹²⁹ 预防个体疾病是减少种群疾病的一种工具，对类人猿来说，满足对自然保护和动物福祉两方面的关切。目前，对野生类人猿的疫苗接种很少见，部分因为我们假定这样做不可行，不过这一假设也在变化。¹³⁰ 只有几种疫苗是专门为非人类的类人猿使用制造的，所以，应当对不曾预见和无法预见的结果保持谨慎。¹³¹

有些情况下，可能应当考虑仔细协调的疫苗反应策略。¹³² 不过，有必要确保对类人猿和非针对物种的影响都不是不利的。¹³³ 因此，疫苗接种的价值因物种而有所不同。¹³⁴ 在考虑对野生类人猿实施疫苗接种时，存在一些挑战，比如接触种群的容易程度和接种方式。¹³⁵ 通过飞镖/吹箭枪或其他类似机制提供的疫苗接种的不利之处包括干扰和压力，进一步降低免疫力，有可能降低对疾病的自然抵抗力；对种群中足够多只数进行疫苗接种才能形成群体免疫，是另一项考虑。¹³⁶





在野外，在特定的情形，比如对习惯化的类人猿，使用过疫苗接种。¹³⁷ 首先也是最重要的一条，在使用前，必须证明任何疫苗对目标类人猿和其他野生动物和人类等非目标物种有效、安全。¹³⁸ 此外，识别潜在的“超级传播者”对旨在限制疫情传播的自然保护措施也是重要的，疫苗接种项目可以针对这些个体。¹³⁹ 利益攸关方在考虑可能对大型类人猿实施疫苗接种时，埃博拉病毒生物学、生态学、疫苗构成和疫苗接种原则可能有用。¹⁴⁰

在人工饲养环境，疫苗接种的决定一般依据接触疾病的风险水平，疫苗接种方案依据人类疫苗接种方案。¹⁴¹ 因为人工饲养的类人猿仍旧是濒危物种的一员，可以主张不应把它们用来测试用于野生类人猿的实验性疫苗。¹⁴²

因为疾病爆发导致响应决策时间很短或者没有，政策制定者应当制定指导兽医和肩负保护类人猿健康任务人员的最佳实践和伦理审查。¹⁴³ 具体来说，应当积极地监测类人猿健康，制定好迅速响应方案，对兽医做好授权，使他们能够充分实施疫苗接种并做好相应准备。¹⁴⁴

野外类人猿

实施同一个健康方式

预防和管理对野生类人猿健康风险的最佳实践依据同一个健康方式。根据《柏林十项原则》，同一个健康提供了全面、包容地应对生态系统、个体、种群和物种健康问题的框架，并把自然保护和公共卫生目标统一起来。¹⁴⁵ 政策制定者和参与野外类人猿健康的其他利益攸关方应当熟悉同一个健康方式，因为这种方式“协作、跨部门、跨学科”，要求“在当地、地区、国家和全球层面工作”。¹⁴⁶ 详见当前这一卷《第2章：同一个健康对人类和类人猿接触互动的作用》。

对面临改善大型类人猿的保护、健康和福祉的复杂挑战的政策制定者来说，同一个健康方式是适当的，因为必须放在全球可持续目标的背景下考虑。¹⁴⁷ 的确，应对对动物、环境和人类健康的威胁，要求考虑相互联系和各自的生态和社会环境。¹⁴⁸

在考虑一个项目时，利益攸关方应当遵循同一个健康的五步流程：提出问题，确定参与或可能受到影响的方面，用系统的方式理解相互关系设定问题，理解问题，探索解决方案。¹⁴⁹ 针对大型类人猿，这可能有些困难，因为极少开展数据收集和健康监测。¹⁵⁰

为了支持同一个健康方式，自然保护工作者、政府、慈善机构、研究者和科学家应当优先重视收集快速变化环境中未习惯化类人猿的健康现状的基线数据，尤其是在亚洲，亚洲的数据比非洲还缺乏。¹⁵¹ 政策制定者应意识到使用直接和视觉监测收集数据不需要昂贵的设备。¹⁵² 这些活动会减少许多现有的重要数据空白空缺，所以为此分配资源非常值得。¹⁵³

了解影响类人猿物种的病原体并予以分类，结合人类疾病监测，会促进有效的同一个健康方式。在这一方面制定研究的机构，应当参照世界自然保护联盟对大型类人猿种群的健康监测和疾病控制的最佳实践指导原则。¹⁵⁴ 另一个值得推荐的资料是《野生动物疾病风险分析程序手册》。¹⁵⁵ 另外，根据监测方案建立一个早期警报系统，能支持立即干预，防止灾难性爆发。¹⁵⁶ 利益攸关方一起使用同一个健康方式，就能制定类人猿保护和健康管理计划，为资金支持和实施做出优先排序。

能力建设和知识共享

在全球范围内，对野外类人猿的健康，尤其是长臂猿的健康缺乏了解，并且管理类人猿健康的人力不足，比如经过充分培训的野生动物健康专业人士十分缺乏。¹⁵⁷ 非常需要减少剩余的许多疾病数据空白空缺，评价疾病管理行动，把临床数据转化为严谨的经同行审查的证据。¹⁵⁸ 为了满足这一需要，政策制定者应敦请相关利益攸关方协作建立和促进国际能力建设网络，协同促进类人猿健康的所有努力。比如，这一网络可以通过讨论论坛、互联网信息站点和兽医领导的培训等实用研讨班，支持教育和赋能。¹⁵⁹ 这个网络可以学习借鉴非人类灵长类新冠肺炎信息站点的工作，它通过在线技术服务，把社区的驯养动物、人类、野生动物健康从业人士和学术界联系起来。¹⁶⁰ 这个网络也可以包括猩猩兽医顾问小组和在它的工作基础上进一步拓展。猩猩兽医顾问小组是一个印度尼西亚和马来西亚学术和健康从业者的论坛。

衔接社区

人是森林生态系统必不可少的组成部分。因此，有效地管理类人猿健康，要求政策制定者把人类行为、决定和价值观结合在一起。¹⁶¹ 成功的社区衔接的基础是致力于建立长期关系（对自然保护或开发举措的任何决定建立在自由、事先和知情同意上），以及对社区文化、社会、经济和其他需要的深刻理解。政策制定者应当确保领导开展社区衔接策略制定和实施的利益攸关方对当地环境敏感。

比如，在制定人类社区健康项目时，利益攸关方必须理解本地化的健康风险，以及本地文化中的健康信仰和关切，以及社区作为一个社会单元的功能。¹⁶² 所有社区需要意识到类人猿与人类之间疾病传播的潜在和实际风险。¹⁶³ 因此，社区衔接项目应当包括文化上适当的传播活动，帮助启发公众认知，提高对社区健康和卫生服务的接受度。

比如，在类人猿分布区国家，在健康设施例行提供对儿童传染性疾病疫苗接种，但是还存在获得障碍，比如后勤运送挑战和系统性不平等。¹⁶⁴ 项目应当应对这些障碍，因为在人类群体采用的疫苗接种等预防策略，对人类社区和类人猿都有保护效果。¹⁶⁵ 项目也应当考虑靠近类人猿栖息地的家畜和宠物的预防性健康项目，向主人宣传最佳动物照护做法。对住在或临近类人猿栖息地居住的社区，应优先提供兽医支持、卫生和废物管理。

富有同情的自然保护

在自然保护领域，常常把重点放在保护生物圈、生态系统和濒危物种及其栖息地。¹⁶⁶ 历史上，自然保护曾经重视保护整体，而对个体不利。¹⁶⁷ 不过，一些伦理学者、哲学家和从业者认为，个体作为有知觉的生命，享有人格，因此提出这些个体的人格很重要，或者这些个体有权利获得人格考虑。¹⁶⁸

过去十年，富有同情的自然保护兴起，这是自然保护中对人格决策的一种视角，平衡集体和个体的利益。¹⁶⁹ 它承认个体的福祉是完善的自然保护做法的有机组成部分。¹⁷⁰ 政策制定者在制定国家野生类人猿保护议程时，会发现富有同情的自然保护有帮助。

这一方式依据四项基本原则：1) 个体重要；2) 首先，不伤害；3) 包容；4) 和平共处。¹⁷¹ 同情，按照一般的定义，涉及认识到他者的痛苦，同时有动力做出反应，想帮助减轻或解决该痛苦。¹⁷² 在付诸实践时，自然保护工作者和其他利益攸关方在致力于保护生态系统或物种时，应确保不会无视或忽视个体的利益。¹⁷³

在野外实地，在自然保护的背景下处理一只个体类人猿的健康和福祉的道德困境时，应把富有同情的自然保护作为一个框架。比如，发生人猿冲突时，富有同情的自然保护提供了探索类人猿和人类行为潜在变化的方式。它促进创造性地探究一起和平共处的可能性，可能形成人类行为变化的可选方案。¹⁷⁴

减轻工业开发的影响

政策制定者探索管理工业开发项目对生物多样性影响的各种减轻策略时，会发现没有几种策略专门应对对类人猿健康的影响。不过，随着更多研究对工业开发项目如何影响类人猿提出见解，生物多样性管理已经改善。¹⁷⁵ 两个主要因素促成提升减轻影响的努力：国家法律和贷款标准。因此，如果公司与政府的许可协议没有考虑对类人猿等濒危物种的影响，公司不大可能为工业开发项目获得资金。利益攸关方可以找到减轻工业开发对野外类人猿影响的最佳实践指南，详见：《第7章：类人猿现状：工业开发项目对类人猿的影响》，以及《类人猿现状》系列丛书第1卷到第3卷。¹⁷⁶

技术和工具

技术进步已经使我们能更好地跟踪和研究野外类人猿和开展健康诊断。资助机构，包括慈善机构、多边机构和政府机构，向野外实地团队为这些新的技术和工具提供资金，可以支持类人猿健康。自然保护工作者、研究者和科学家可以使用新的可获得的方式，在类人猿的自然栖息地研究类人猿，不用习惯化，也不用人类观察员。比如，今天的工具包括热成像摄影捕捉和无人机、手持数据收集仪器、脸部识别软件应用、被动声音监测。¹⁷⁷ 任何技术都可能迅速进步，所以鼓励政策制定者跟踪关注对有潜力造福野外类人猿健康的最新技术突破。

管理研究和旅游

在实施和执行恰当的管理实践时，类人猿是重要的经济资产，因为它创造直接就业机会和财政收入，为当地社区增加收入和生计机会。¹⁷⁸ 比如，旅游业收入能支持社区健康设施和学校，帮助降低习惯化类人猿和人们之间疾病传播的风险。¹⁷⁹ 类人猿研究和旅游也可能导致偷猎或活络锁套事件减少。¹⁸⁰

不过，还没有一个全球机构管辖野生动物旅游，每个国家政府的政策制定者应把最佳管理实践纳入国内法律框架。法律法规应聚焦预防疾病，因为与控制爆发相比，预防疾病成本低得多、更容易、更高效。¹⁸¹ 另外，旅游和研究项目管理应当包括防止捕猎和布置活络锁套，在必要时，提供快速的兽医干预。¹⁸²



按照《第3章：旅游和研究活动对类人猿健康的影响》的阐述，政策制定者在考虑批准类人猿研究和旅游项目时，应采取审慎的方式。¹⁸³ 尤其在新冠疫情时代，政府有必要用批判的眼光评价习惯化作为一种类人猿保护工具，我们认为的和真实的益处和成本。¹⁸⁴ 为研究或旅游业使新的类人猿种群习惯化，要求开展广泛的风险评价和可行性研究，必须针对具体地点和物种，必须考虑该情况的环境、社会经济和福祉特征。¹⁸⁵ 在考虑批准时，任何新的习惯化企图必须考虑对动物福祉和疾病传播的最新科学证据。¹⁸⁶

对习惯化的一种主张认为，有更多个习惯化的小群，可以分散任何一个给定地点的卫生和其他风险，因为为研究和旅游活动提供了更多选择。¹⁸⁷ 不过，在个体和物种层面，需要更多信息，才能了解习惯化的风险。¹⁸⁸ 在类人猿已经习惯化的地方，研究和管理政策应当聚焦保护，包括补全对类人猿健康知识的空白空缺，理解类人猿、人类和其他动物健康之间的联系。研究者应收集接触人类存在的野外类人猿种群的基线数据，定量研究习惯化对用于旅游和研究的种群健康的影响。¹⁸⁹

有旅游和研究项目的保护区的管理者必须确保习惯化和其他相关活动对类人猿的行为、生态系统和总体健康有最少的负面影响。¹⁹⁰ 必须使用细致的风险管理计划指导习惯化和参观巡视，以平衡成本和益处。¹⁹¹ 在这个话题上，对公园管理者必不可少的一个资料是世界自然保护联盟《大型类人猿旅游最佳管理实践指导原则》。¹⁹²

为了防止疾病传播和对类人猿健康的其他威胁，对类人猿研究和旅游的管理要求所有利益攸关方之间协作行动，包括社区、自然保护机构、政府、公园主管当局、研究者和游客。¹⁹³ 对制定和实施在与类人猿相遇时严格的生物安全方案和适当做法，每个利益攸关方群体都不可或缺。¹⁹⁴ 在这个过程中，利益攸关方应当参照世界自然保护联盟《大型类人猿种群健康监测和疾病控制最佳实践指导原则》。¹⁹⁵

在新冠肺炎疫情期间，为类人猿健康监测和疾病控制制定了这份最佳实践指导原则。¹⁹⁶ 政策制定者可以使用这些控制和协调框架，指导为预防未来疾病爆发有效地使用资源。在疾病爆发时，人对类人猿的参观巡视应降到继续监测类人猿健康和安全的最低限度。¹⁹⁷ 应制定强制性的生物安全要求，并开展遵守情况检查，这些要求包括保持距离，在与类人猿任何接触前先检疫隔离，以及佩戴口罩。¹⁹⁸ 执行生物安全方案会显著降低疾病传播给类人猿的风险。¹⁹⁹

更好地管理游客预期和更广大公众的意识，对保护类人猿大有帮助。²⁰⁰ 如果研究者、游客和公园人员（导游、跟踪者等）对他们带来的风险非常知情和理解，就更可能遵循最佳实践指导原则。²⁰¹ 通过社交媒体或外联宣传，向游客做好宣传，应向游客教育宣传疾病传播的风险。卫生指导原则和其他意识宣传材料的编写和传播，应针对多种受众，尤其是旅游网站。²⁰²

自然保护工作者呼吁停止发布人与野生动物密切接触和身体接触的影像。²⁰³ 应使游客意识到世界自然保护联盟灵长类专家组在《对非人类灵长类负责任影像的最佳实践指导原则》中对人类与灵长类互动的建议。²⁰⁴ 需要加大力度执行这些建议和最佳管理实践，应对公园人员、研究者和游客总体不够遵循遵守的情况。²⁰⁵

与此同时，应为公园人员制定更多激励，支持实施最佳管理实践。政策制定者在确定向哪些方面投入旅游业创收时，应考虑对公园人员的激励。同时，应为接触类人猿的员工建立员工健康项目，这些项目也应覆盖员工的家庭。这些应包括对显示传染性疾病症状的人员的健康保健、健康教育、健康筛查、强制性疫苗接种和检疫隔离。²⁰⁶ 因为无症状携带者带来的挑战，员工健康项目与严格的卫生规则应一起实施。

人工饲养和半人工饲养的类人猿

实施同一个健康方式

与野外类人猿一样，人工饲养类人猿旅游是来自国际和国内游客的收入来源。²⁰⁷ 类人猿设施可以为当地和国际游客提供教育、学习和观看机会，类人猿孤儿为类人猿的艰难处境提供了有强大感染力的信息。²⁰⁸ 政策制定者以及照护人工饲养或半人工饲养类人猿的健康和福祉的人员，应熟悉《第8章：人工饲养类人猿的福祉和现状》介绍的同一个健康的方式。这一种方式承认动物福祉、人类福祉和环境之间存在相互联系。²⁰⁹

动物福祉指的是一个动物如何感受自己的生命，要求在情感、智力和身体方面平衡，包括自主和自决。²¹⁰ 重要的是，没有痛苦，或者只是生存，并不等于良好福祉。²¹¹ 为了提高动物福祉的可见度和促进社会价值观改变，倡导者需要向政策制定者大声主张动物福祉。²¹² 对动物福祉如何介绍和理解，影响对它如何评价。²¹³ 比如，当前在政策制定中使用的一些语言破坏动物福祉，应反映动物法律的变化、科学和公众对动物知觉的意见。这可能鼓励在全世界对动物更多同情、尊重和对待。



对人工饲养类人猿照护的最佳实践包括：允许与其他类人猿社交互动或避开，发展自然的围场环境，促进觅食机会，以及有可预测的喂食时间表。© Lwiro Primates Rehabilitation Center

人工饲养类人猿设施管理者应聚焦使类人猿尽可能接近自然生活一样生活，保持身体健康，减少负面情感状态。²¹⁴ 管理者必须维护所有必要的福祉基础设施，包括动物培训、环境丰富、栖息地、饲养、营养、研究和兽医诊治照护。²¹⁵ 人工饲养和半人工饲养类人猿设施需要强大的领导能力，在短期和长期管理一系列复杂的类人猿健康和福祉问题。适当的机构层面的标准必不可少，因为这些标准对类人猿的生活质量有最大影响。最佳实践建议呼吁机构政策和实践包括福祉评价工具、承诺、专用资源、操作框架和机构支持性文化。²¹⁶ 现在设施管理者有多种可用的方式和工具，依据具体物种的指标，支持对人工饲养类人猿福祉的评价。²¹⁷

为减少人类与类人猿之间疾病传播的风险，设施必须实施强有力的标准操作程序，包括严格的针对工作人员和游客的生物安全和卫生规则。²¹⁸ 对人工饲养类人猿照护的最佳实践包括：允许与其他类人猿社交互动或避开，发展自然的围场环境，促进觅食机会，以及有可预测的喂食时间表。²¹⁹ 不同物种的身体和社交要求可能不同，遭受实验室生活创伤的物种的身体和社交要求也不同，比如创伤后应激障碍或抑郁。²²⁰

获得、迁移转运、康复和放归

考虑获得或迁移转运类人猿的任何机构，必须开展尽职调查，确保能满足类人猿的行为、生理和心理要求。²²¹ 与此类似，所有干预、康复和放归流程应考虑每一阶段动物的福祉。²²² 为了支持设施管理者的工作，国际自然保护联盟正在制定聚焦旅游业的指导原则，其中包括一章介绍人工饲养环境和放归项目的灵长类。²²³

因为类人猿会习惯人类，减少人类与动物的互动常常是为放归的康复的一项重要要求。²²⁴ 所有重新放归野外的类人猿，必须经过彻底的健康检查和疾病筛查，确保重新返回大自然的个体不会伤害野外种群，也不会影响住在放归地点附近的人类社区的健康。²²⁵ 世界自然保护联盟大型类人猿和长臂猿重新放归指导原则介绍了行为评价标准，放归前分阶段的准备，以及放归后为促进适应的支持。²²⁶

这些指导原则指出，如果没有充分的康复和放归后支持，不应放归知识和技能存在显著不足的类人猿。²²⁷ 不过，对监测放归后类人猿福祉的方法，没有给予多少关注。²²⁸ 放归的类人猿可能能力不足，有必要提供照护，而对自由觅食行进的野生动物一般不提供照护。²²⁹ 虽然对监测放归后类人猿福祉没有轻松的答案，清楚地指出来这个问题，把它作为必不可

少的一项目标，会协助政策制定者和其他利益攸关方在制定适当的方式和工具时予以考虑。值得一提的是，有放归的类人猿存活和健康成长的例子，可以从中学习借鉴。²³⁰

对人工饲养类人猿设施的认证

每个人工饲养类人猿设施的机构政策不同，对设施的严格认证系统能帮助支持动物福祉。虽然专业认证不能代替政策制定者应制定的国家法律框架，专业认证提供了福祉管理的通用标准，有时候超越国家界限。专业认证系统可以比法律系统更灵活，这能实现适应、改进和更新新的发展和知识。²³¹

在没有适当的或执行的法律的国家，专业协会能帮助改善人工饲养和半人工饲养类人猿设施的福祉标准。²³² 有必要指出，有几个认证系统和养护所网络，每个系统和网络的方式和标准不同。比如，只有北美灵长类养护所联盟要求第三方

验证。与此类似，有几个区域性动物园协会，不过，世界动物园与水族馆协会是最广泛的国际机构，全世界有400个成员。²³³设施管理者应寻求严格的专业认证系统，包括直接福祉支持服务，以及支持问责的遵守、治理和操作标准。²³⁴

倡导者和政策制定者应当意识到，认证并不保证就有更高的动物福祉标准。²³⁵ 实际上，运行不佳的认证系统会传达动物照护和待遇的虚假水平，坏处反而比好处多。²³⁶ 当前各个认证机构的方案相差不小，表明缺乏共识，需要进一步标准化。

能力建设和知识共享

政策制定者应认识到，对人工饲养和半人工饲养类人猿福祉的有效支持，要求多项能力，而在一个机构内很少同时具备。²³⁷因此，自然保护工作者、设施管理者、慈善机构、研



究者和科学家应协作，倡导严格立法和福祉认证，建立和共享福祉评价、知识和实践，促进获取专业知识和资源。²³⁸支持类人猿分布区国家养护所能力建设的现有资料包括《灵长类兽医健康手册》。²³⁹对管理异域野生动物的非分布区国家动物园和设施来说，在线网站《你的机构做好准备了吗？》有资料可供查阅。²⁴⁰

技术和工具

技术进步正在兴起，可以调整用于人工饲养和半人工饲养类人猿设施。²⁴¹这些包括影像系统，可以无干扰地监测人工饲养的类人猿，并储存影像素材供将来查看。数据收集的数字可选方式能节约时间，减少报告中的潜在误差。不过，这可能要求使用者购买商业软件和硬件，或者有技能和时间学习和使用这些软件和硬件。²⁴²



各个国家对类人猿的法律保护相差很大，在一些国家一点儿保护也没有。© IAR Indonesia

福祉评价工具必须做到既对用户友好和对环境方便好用，又有针对性、能形成有用的产出，在两方面平衡好。一旦同意和验证了评价指标，就可以探索开发福祉评价工具了。²⁴³对在实地养护所设施工作的人来说，结实耐用的设备，配备长时耐用电池和简单备份数据方法，会十分有益。²⁴⁴技术可能比较昂贵，慈善机构应支持人工饲养和半人工饲养类人猿设施，为购买技术提供财务支持。

管理危机和灾害情形

灾害管理原则包括一套重要的工具，减轻或降低人为和自然隐患对人工饲养和野外类人猿的影响。专门针对类人猿的原则很少，政策制定者和负责类人猿健康和福祉的其他人员可以采用现有的灾害管理原则，详见《第6章：灾害管理和类人猿保护》。

管理有潜力影响类人猿的危机和灾害情形的最佳实践，还存在显著的知识空白空缺。因此，自然保护工作者、设施管理者、公园主管当局、研究者和科学家应当协作，制定满足类人猿的具体需要的灾害响应措施。另外，在灾害来临时，资源需要很大，可能超过当地处理和处置能力。因此，政策制定者和慈善机构有必要安排资金和资源，用于灾害风险评估、预防、准备、响应和恢复²⁴⁵

加强国内法律框架

国内法律框架展现一个国家对人工饲养和野外类人猿健康和福祉的国家重视水平。不过，对类人猿的法律保护在各个国家相差很大，一些国家缺乏任何保护。²⁴⁶自然保护法律最常聚焦自由觅食行进的野生动物物种的管理和存活，动物福祉法律通常聚焦驯养动物。²⁴⁷人工饲养类人猿设施可能必须遵守有关动物福祉、生物样本采集、人类与类人猿互动和兽医医学的法律。适用于人工饲养类人猿的法律要求可能还包括控制程序和健康检查措施。²⁴⁸对野生类人猿旅游和研究，最佳管理实践和卫生指导原则应当具有法律约束力，以便支持执法和实施。

为了理解适当和可执法的类人猿福祉法律存在的差距，政策制定者应委托在国家层面进行跨学科分析。类人猿福祉倡导者、自然保护工作者、慈善机构、研究者和科学家应支持政府开展这些分析。努力满足和超越人工饲养野生动物福祉的最佳实践标准的国家层面的例子包括马拉维和哥斯达黎加。它们可以作为效仿的模板。此外，对有意制定新的或改善现有立法的政策制定者，《动物福祉模拟法案》一书可以作为基本的模板和指南文件。²⁴⁹

适用于工业开发项目和非法贸易的国内政策建议，详见《类人猿现状》丛书前几卷。²⁵⁰

建立国际法律框架

现在有多个国际公约，直接或间接影响对自然和野生动物的管理。不过，国际政策层面一般没有包括动物福祉，目前对保护动物福祉还没有全球协议。²⁵¹ 2022年出现了一次例外，联合国环境大会成员国通过了有史以来第一份明确提到动物福祉的决议，承认动物福祉、环境和可持续发展之间的联系²⁵²

除此之外，在重要的国际对话中没有提及人工饲养的野生动物的福祉，所以，一份专门的条约有潜力把动物福祉纳入全球环境议程的主流。《世界动物福祉宣言》是一份拟议的政府间协议，旨在防止残酷，减少折磨，促进福祉标准。²⁵³ 这可能是走向《联合国动物健康与保护公约》的一步，将对缔约方具有法律约束力。²⁵⁴

政策制定者应与倡导者、自然保护工作者、慈善机构、研究者和科学家协作开展一项可行性研究，理解通过和实施一份专门的联合国公约的挑战和需要的资源。全世界达成一致的针对各个物种的福祉指标将协助在人工饲养类人猿设施内外的监测，帮助设定专业标准，使各国主管当局能更容易客观地确定是否发生了福祉犯罪。²⁵⁵

结论

减少人工饲养、半人工饲养和野外类人猿的传染性疾病和非传染性健康风险，要求应对来自人工饲养类人猿照护、栖息地破坏和蚕食、非法贸易和非法人工饲养、工业开发、自然灾害、旅游和研究活动、迁移转运和迁地保护的风险。政策制定者和其他利益攸关方应更深入地研究同一个健康、同一个福祉方式，获得对最佳实践的指引。另外，政策制定者应强化国内和国际法律框架，因为目前这些框架不足以防止对类人猿健康和福祉的威胁。此外，因为还存在知识上的重大空白空缺，应在政策制定者的支持下开展研究，增进对所有类人猿物种及其环境的了解。

缩略词和缩写词

AZA	动物园和水族馆协会
BIAZA	British and Irish Association of Zoos and Aquariums 英国与爱尔兰动物园与水族馆协会
CDC	Centers for Disease Control and Prevention 美国疾病预防控制中心
COVID-19	Coronavirus disease 2019 新冠肺炎疾病
GHSA	Global Health Security Agenda 全球健康安全议程
HIV	Human immunodeficiency virus 人类免疫缺陷病毒
IUCN	世界自然保护联盟
IUCN SSC PSG	IUCN Species Survival Commission Primate Specialist Group 世界自然保护联盟物种存续委员会灵长类专家组
PASA	African Association of Zoos and Aquaria 非洲动物园与水族馆协会
SARS-CoV-2	Severe acute respiratory syndrome coronavirus-2 严重急性呼吸综合征冠状病毒2号
SGA	IUCN Species Survival Commission Primate Specialist Group Section on Great Apes 世界自然保护联盟物种存续委员会灵长类专家组大型类人猿股
SIV	Simian immunodeficiency virus 猴免疫缺陷病毒
TB	Tuberculosis 结核病
UNEP	United Nations Environment Programme 联合国环境规划署
UNESCO	United Nations Educational, Scientific and Cultural Organization 联合国教育、科学及文化组织
WAP	World Animal Protection 世界动物保护协会
WAZA	World Association of Zoos and Aquariums 世界动物园与水族馆协会
WFA	World Federation for Animals 世界动物福祉联合会
ZAHF	Zoo and Aquarium All Hazards Partnership 动物与水族馆各种隐患合作关系

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随着人类世继续，人类对地球上所有生态系统的影响越来越明显可见，人们对这些影响也越来越了解。森林砍伐、对自然栖息地蚕食侵占和其他人类活动正推动人们与病毒、寄生虫和细菌等各种野生动物之间更频繁地互动接触。其中一个结果是疾病传播风险增加，对生物多样性保护和人类健康都有严重影响。的确，传染性疾病常被列为对类人猿保护的主要威胁之一，就像栖息地丧失和捕猎也是主要威胁一样，这两项因素也会让类人猿接触健康风险。在庇护所和动物园等人工饲养环境，类人猿面临来自与人类接触增多带来的类似健康风险，以及老年疾病和心理障碍。野生动物病原体溢出到庇护所也会发生。

这一卷《类人猿现状》既包括原创研究和分析，也包括针对具体话题的案例分析和新出现的最佳实践，以进一步推动围绕疾病与健康的类人猿保护议程。这一卷提供对相关疾病和健康问题的概述，探索各种因素，比如介入和管理类人猿健康的伦理；研究和旅游对类人猿的影响；“同一个健康”方式；以及灾害管理与类人猿保护。

这一卷表明类人猿的福祉如何与共享类人猿栖息地的人们的福祉休戚相关，同时也表明在从地方到国际的各个层面，把类人猿保护纳入卫生、社会经济活动（包括采掘业、工业化农业、基础设施开发等活动）和管制政策和实践的益处。

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“ Arcus基金会继续致力于应对对世界上大型类人猿和长臂猿的严重威胁，出版了有巨大影响和让人警醒的类人猿和长臂猿保护系列丛书《类人猿现状》。

每一代人都遇到它的挑战；不过，历史上很少有几次让我们有能力永远影响后续每一代人。大型类人猿和长臂猿是联系我们进化的过去和将来的关键纽带，保护这些物种，实际上就是保护我们自己。”

英格·安德森 (Inger Andersen)

联合国副秘书长兼联合国环境规划署执行主任

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